Issue 60 • May 1993 • £2.99 Overseas price £3.25

AMIGA COMPUTING


Colour and mono scanners tested

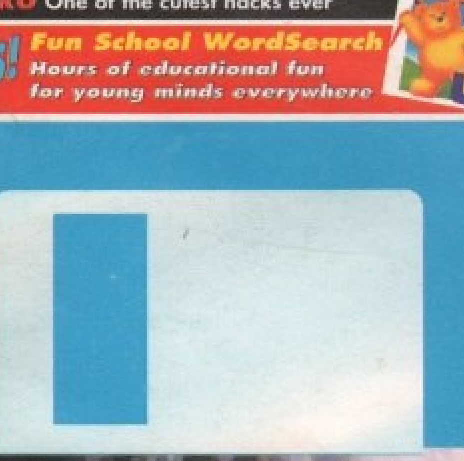

Retina 24-bit card exclusive review

SEX, LIES AND VIDEO GAMES

Monster makers or media myth?

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REVIEWED: Pixel 3D Professional • Scanner roundup
Fractuality • Vista Pro 3.0 • Scenery Animator 2.0
Wordworth 2 AGA • Retina budget 24-bit board

Award winning innovative products from

Scanners

"If your in the market for a hand scanner then forget the rest and get Powerscan"
Amiga Format July 1992

Power Scanner v3.0



GOLD

- 100-400 DPI scanning resolutions
- 64 greyscales
- Thru'port for printer
- Award winning editing, image manipulation & scanning software

Power Scanner v3.0 .... £115
Power Scanner Colour £239
v3.0 Upgrade (inc. interface).. £49.95
v3.0 Software upgrade for Power Scanner users (send SAE) £15

Epson GT-6500

GOLD



- 600 DPI Colour flatbed scanner
- 24-bit colour
- Software included

GT-6500 inc. Powerscan v3.0 .... £799
GT-6500 inc. ASDG Software £899
Transparency Adaptor Unit £499
Document Feeder £399

Epson GT-8000

- 800 DPI colour flatbed scanner
- 24-bit colour
- 16.7 million colours
- 256 greyscale
- Scan line art images
- Optional automatic document feeder
- Optional transparency adaptor
- Software included

GT-8000 inc. ASDG Software £1199
Transparency Adaptor Unit £499
Document Feeder £399

Floppy Drives

"This drive contains more gadgets than Batman's utility belt"
Amiga Computing Feb1992

PC880B Power Drive



- Award winning drive manufactured by Power Computing
- Super slim design
- Anti-click (Cures that annoying click)
- Virus blocker (Prevents viruses)
- Built-in backup hardware

PC880B with Blitz Amiga £60
PC880B with Blitz & XCopy £75
PC880B (Cyclone compatible)* £65
PC880B in black case £65

*This drive is only available to registered owners of XCopy Professional. You must provide proof of purchase of XCopy Professional

Power Drives

PC880E Economy drive £49.95
PC881 A500 Internal drive £45.00
PC882 A2000 Internal drive £45.00

Dual Drive

- Two high quality disk drives built into one compact unit
- Same features as PC880B

Dual drive £125

Blitz Amiga

- Backup disks at lightning speeds
- Stops all external drives from clicking
- Contains anti-virus from being written into the bootblocker

Blitz Amiga £20

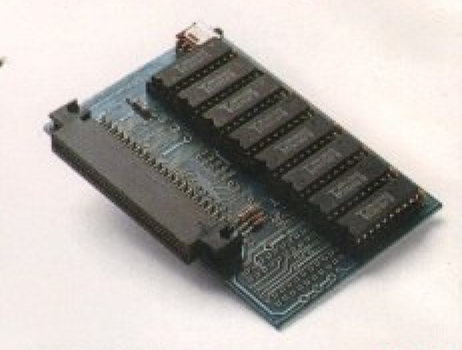
Blizzard Turbo

- For the A500/A500+
- Expand up to 8MB (0K installed)
- Memory and 68000 CPU run at 14.28MHz
- Fast 68000 processor installed on-board
- Fully auto-configuring
- Optical 512K shadow RAM on extra memory bank for shadowing the operating system out of ROM or from disk

Blizzard Turbo £129
Blizzard Turbo 2MB RAM £185
B' Turbo 2MB RAM + 256K Shadow RAM .. £199

RAM Expansions

A600 Memory Cards



1MB RAM with clock £39.95
1MB RAM without clock £34.95

PC501+ RAM Card

Our RAM board is designed especially for the A500+ computer and comes with 1MB of RAM on board to expand your memory to 2MB of chip RAM. Plug-in and go operation (Fits into the trapdoor)

PC501+ RAM card £35.95

8MB Power Board

- Plugs into side slot, fully auto config, full thru'port. Expand 2MB-8MB

2MB £109 4MB £169 8MB £289
1 x 4ZIP chips £14.95

1.5MB RAM Board

- Fully supports 1MB of chip RAM
- Fully compatible with Fatter Agnus

(Kickstart 1.3 and above, not compatible with A500+)
(Your Amiga needs to be opened, this may effect your warranty)

1.5MB RAM board £85

1MB with Thru'port

- Expand your A500's memory up to a total of 2MB without disposing of your existing 512K upgrade
- Works with 1MB of Chip RAM

(512K RAM must be 4 chip type or not exceeding 9cm in length)
(Your Amiga needs to be opened, this may effect your Warranty)

1MB with thru'port £49

A500 RAM Card

- 512K RAM expansion with clock & free software (A500+ compatible)

512K RAM (4 chip) with clock £29
512K RAM without clock £24

PCMCIA Memory

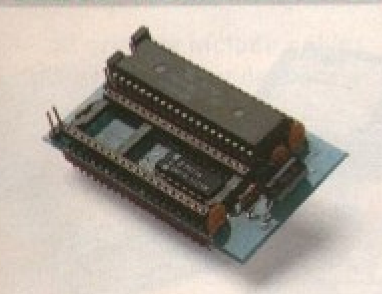
- Ultra slim memory cards
- 2MB Memory card
- SRAM Memory
- For the A600/A1200

2MB Memory card £149

Power Computing, France, 15 Bld Voltiare 75011, Paris, France. Tel (1) 43386206 (6 lines) Fax (1) 43380028

Power Computing Ltd ▪ Tel 0234 843388

Auto ROM Sharer



- One of the most advanced kickstart ROM sharers available
- Fits A500, A500+, A1500
- No messing with switches
- No CIA adaptor or other trailing wires
- Simple internal fitting*

* Kick-off requires the lid to be removed from the Amiga. This may invalidate your warranty.

ROM Share	£19.95
ROM Share inc. kickstart v2.04	£55
ROM Share inc. kickstart v1.3	£39
ROM Share for A600	£29
ROM Share for A600 inc. kickstart v1.3	£55

Kickstart v2.04

2.04 Kickstart (chip only)	£32

Chips

4MB x 8SIMM	£POA
1MB x 8SIMM	£25
256K x 4DRAM	£5.00
1MB x 1DRAM	£4.50
1 x 4 ZIP	£14.95
1 x 4 DIP	£19.95
A3000 Static column RAM	£19.95
SIMM 32 x 1MB-60	£59
SIMM 32 x 4MB-60	£179

(These chips cover most memory & hard drives i.e. GVP, Supra, Commodore)

Spares

A500 Power supply	£39.95
v1.3 kickstart ROM	£24
v2.04 kickstart ROM	£32
Fatter Agnus 8372	£44
Big Fat Agnus 8375	£48
Hi-Res Denise	£29
CIA 8520	£9.95
Data Switches 2 way	£15.99
Data Switches 3 way	£17.99
Data Switches 4 way	£19.99
IDE Cable for A600, A1200 (inc. installation software)	£15.95
Modem Cable	£9.95
Printer Cable	£6.95
SCSI Cable	£9.95
SCSI Duel Connector 2 way	£15.95
Monitor Cable for Philips 8833	£9.95
PC880B Upgrade, compatible with X-Copy	£15

A500 Hard Drives

GVP A530 Turbo HD



- 40MHz 68030EC accelerator
- Optional 68882 maths co-processor
- Up to 8MB 32-bit FASTRAM on-board
- Award winning

40MB HD 0MB RAM	£499
80MB HD 0MB RAM	£599
160MB HD 0MB RAM	£729
200MB HD 0MB RAM	£829
68882 Upgrade kit	£224

GVP Series 2 HD

- Up to 8MB FASTRAM on board

40MB	£299
80MB	£379
160MB	£529
200MB	£599
Each 1MB x 8SIMM	£25

Video Backup System

- Use VCR as a backup storage device
- Blank video tape is all that is required
- 200 Amiga floppy disks will fit on a 4 hour tape
- Can be used for hard disk backup
- There is room for 175MB of data
- Backup an Amiga diskette in 1 minute
- Restore even to an unformatted disk
- Hard disk backup, software allows you to specify which files and directories to be stored
- Low cost storage, 2 pence per MB
- Menu driven software
- Allows you to watch TV on a 1084s monitor
- Very high reliability
- Log files, contain title and counter position of every backup
- Video connection check, ensures fool proof operation
- Effective error-correction scheme
- Easy to understand manual
- Highly rated

Video Backup System	£59.95

The Power BBS

- Free technical and buying advice
- Thousands of free files available
- Great discounts on all Power products
- On-line ordering to ensure speed of delivery
- Conferencing with top computer magazines
- Regular bulletins with latest product information

The Power House BBS

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Amiga 600

Amiga 600	£285
Amiga 600 &40MB HD	£455
Amiga 600 & 60MB HD	£489
Amiga 60 & 80MB HD	£529

Amiga 1200

Amiga 1200	£390
Amiga 1200 & 40MB HD	£560
Amiga 1200 & 60MB HD	£595
Amiga 1200 & 80MB HD	£639

2.5" IDE Internal HD

- A600/A1200 compatible (inc. cable & installation software)

40MB Internal HD	£179
60MB Internal HD	£205
80MB Internal HD	£229
130MB Internal HD	£359

Commodore CDTV

CDTV multi-media pack	£399

CDTV Software

A Bun for Barney	£29.99
Barney Bear goes camping	£29.99
Battlechess	£39.99
Case of the Cautious Condor	£34.99
CD Remix v2	£34.99
Fred Fish CDPD Collection	£19.95
Fun School 3 (under 5's)	£24.99
Fun School (5-7yrs)	£24.99
Fun School (Over 7yrs)	£24.99
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Trivial Pursuit	£49.99
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Xenon 2 Megablast	£29.99

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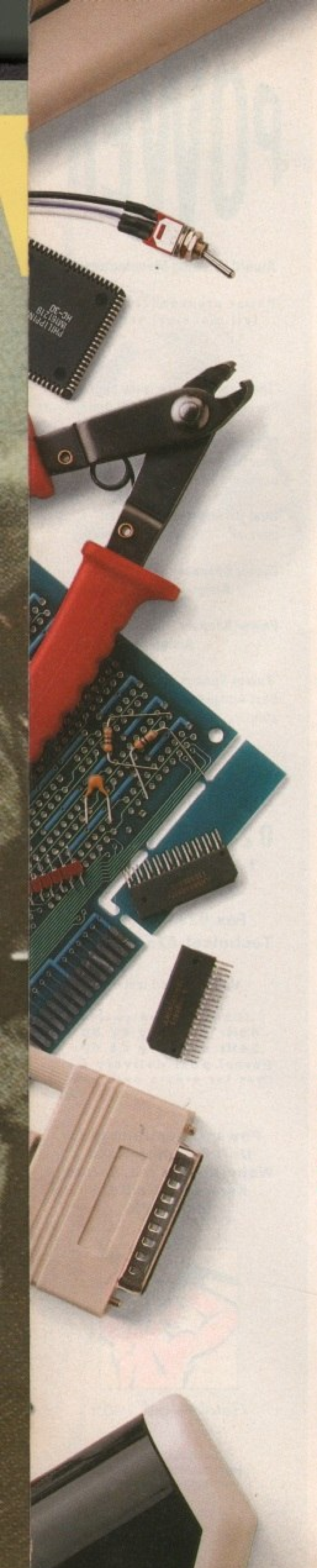
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Award winning innovative products from Power Computing Ltd

A2000 Hard Cards

GVP Series 2 HD
- Up to 8Mb SIMM RAM on-board
- Supports external SCSI devices
- 14MHz SCSI controller

Bare	£129
40MB	£249
80MB	£319
160MB	£449
200MB	£549

Bare SCSI Hard Drive
- SCSI or IDE 3.5"

80MB	£199
160MB	£329
200MB	£499

(Suitable for GVP G-Force, GVP HD or Nexus HC)

Other sizes of HD available, please call

1Gigabyte HD
- Internal Hard Drive
- A1500/A2000

1GB Hard Drive	£999

Power Board
- New RAM board from Power
- A1500 / A2000 RAM board

2MB	£99
4MB	£149
8MB	£239

Macintosh Emulator

AMax-II Plus	£299

(Mac ROM Chips required)

Commodore Amiga
- Amiga 4000 includes
- 68040 micro processor
- 25MHz clock speed
- 16.8 million colour palatte
- Display up to 256,000 colours on screen
- Built-in 3.5" high density disk drive

Amiga 4000 & 120MB HD	£2099
Amiga 3000 & 52MB HD	£1299
Amiga 3000 & 105MB HD	£1499
Amiga 3000T 100MB HD 5MB RAM	£1999
Amiga 3000T 200 MB HD 5MB RAM	£2499

Amiga Accessories

A2300 Genlock	£57
A2065 Ethernet	£245
A2232 Serial Card	£104
A2320 Display Enhancer	£163

OpalVision
- 24-bit graphic card
- 16.8 million colours available
- Equipped with 1.5MB of display RAM
- Opal Paint 24-bit painting
- Opal Presents
- King of Karate

OpalVision	£699

More information available

OpalVision roaster chip available soon

Monitors

Philips CM8833 Mk2
- With cable
- Available with Lotus Turbo Challenge 2
- On-site maintenance

CM8833 Mk2	£239

Other Monitors

Commodore 1084S	£199
Commodore 1960 TRI-SYNC	£479
NEC Multisync 4FG	£549

ICD Flicker Fixer

Flicker Free Video 2
- Stop that annoying flicker
- Fits internally in the A500
- Multi-sync monitor required

Flicker Free Video 2	£199

Music



- The complete music kit for the Amiga
- Includes:
- Music Kit package
- Real Time Sound II
- Over 32 special efffects
- Can work with MIDI instruments
- Digital Studio III
- Midi interface
- Stereo sound digitiser
- Stereo speakers
- All leads & software

The Music Pack	£69.95
Speakers only	£15.95
Midi interface	£15.95

Optical Hard Drive



- Manufactured by Power Computing
- 128MB on one optical disk
- Read and write optical disks
- 40ms running speed
- Built-in power supply
- High power cooling fan
- 25-way and 50-way SCSI ports
- Thru'port built-in
- SCSI ID switch
- Compatible with major SCSI controllers

128MB optical drive (Internal)	£729
128MB optical drive (External)	£999
128MB 3.5" optical disk	£39.95 each
SCSI controller card for A1500 / A2000	£129

(Compatible with Amiga, PC, and Mac. A SCSI controller is required on the Amiga and PC)

Floptical Disk Drive
- Stores 20MB on one 3½" disk
- Cost effective mass storage unit
- Can be used as a 1.44MB floppy with Amiga DOS and AMAX
- AMAX compatible with DMI Mac driver
- Packs an entire back-up onto one floppy
- Additional disks available
- Internal version for A1500/2000/3000
- External version for A500
- SCSI Interface required

Internal A2000 kit	£289
Internal A3000 kit	£289
External A500 kit	£389
A1500	£599

Accelerator

GVP G-Force
- 68030 accelerator board
- 68882 Maths co-processor

25MHz 1MB RAM	£499
40MHz 4MB RAM	£759
50MHz 4MB RAM	£1099
Hard drive mount kit	£35
68040 Fusion 40 inc. 4MB	£999
68040 Pro-Peripherals inc. 4MB	£999
1MB x 8SIMM	£25
SIMM 32 x 4MB-60	£179
SIMM 32 x 1MB-60	£59

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Printers

All printers include cables and next day delivery

Star Printers

LC20	£139
LC100 colour	£165
LC200 colour	£195
LC 15	£229
LC24-100	£185
LC24-200	£225
LC24-200 colour	£279
Laser LS-5	£699
Laser LS-5EX	£899
Laser LS-5TT	£999
SJ-48	£229

Epson Printers

Laser

EPL-4000	£639
EPL-4300	£799
EPL-8100	£1349

Inkjet

SQ-870	£509
SQ-1170 (132 column printer)	£629

Dot Matrix

LQ-570	£289
LQ-1070 (132 column printer)	£449
LQ-100	£209
LX100	£189

Supra Modems

Supra Fax Modem+ (inc. PSU, cable, software)	£139
Supra Fax Modem 32BIS	£269

Miscellaneous



Power Mouse	£15
Optical Mouse	£29.95
Replacement optical mouse mat	£9.95
100 Branded disks + disk box	£69.99
Quality branded disks (10)	£9.95
A1200 Dust cover	£5
Trackball	£29.95
Crystal Trackball	£34.95
Optical Pen Mouse	£34.95
Brush Mouse	£19.95
Aviator 1 joystick	£35
Intruder 1 joystick	£29.99
Maverick 1 joystick	£15.99
Python 1 joystick	£9.99
Apache 1 joystick	£7.99

Colour PowerScan

The Power Computing colour hand-held scanner for the Amiga is now available. This scanner offers the following features

- 4096 colours
- 50-400 DPI
- 4 Scanning modes
- Text
- Greyscale
- Colour halftone
- Colour

The Amiga interface plugs into an A1500/A2000/A3000/A4000 expansion slot with a separate version which connects to the expansion connector of the A500/A500+. The A500 version has a through-port which is compatible with all Amiga 500 expansion peripherals.

The software supplied with this scanner is the new PowerScan Professional 3, which also supports the greyscale scanner and will be available as an upgrade to existing users of PowerScan for £15.

- Images are displayed as HAM pictures
- HAM images may be loaded from disk and edited using PowerScan 3
- Image size that can be handled is limited only by the amount of memory available
- Memory does not have to be chip memory as in many art packages
- Images can be saved in various file formats
- View whole image function
- Scale/rotate/skew image or clipboard by any amount
- Crop image
- Clean up, lighten or darken image
- Variable zoom mode
- Draw freehand, lines, circles, boxes and polygons in various fill patterns, brush sizes, paste modes, or with the clip board image
- Clipboards may be scanned directly, or any shape can be cut from the main image
- The software is compatible with all Amigas
- Supports Workbench 2 and ECS screen modes

Colour PowerScan v3.0 features

- Real-time 'True-feel' scan option in colour halftone mode
- Images are stored internally as 12-bit graphics, not HAM. This means that no quality is lost due to the Amiga only being able to display HAM images in 4096 colours

Colour PowerScan now available

New v3.0 Scan software

PowerScan Colour v3.0	£239
PowerScan Greyscale v3.0	£115
PowerScan v3.0 software upgrade	£15

The Amiga can only display 16 greyscales

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CONTENTS



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The very best monthly column covering ongoing Amiga topics – essential reading for all enthusiasts

FEATURES

REVIEWS

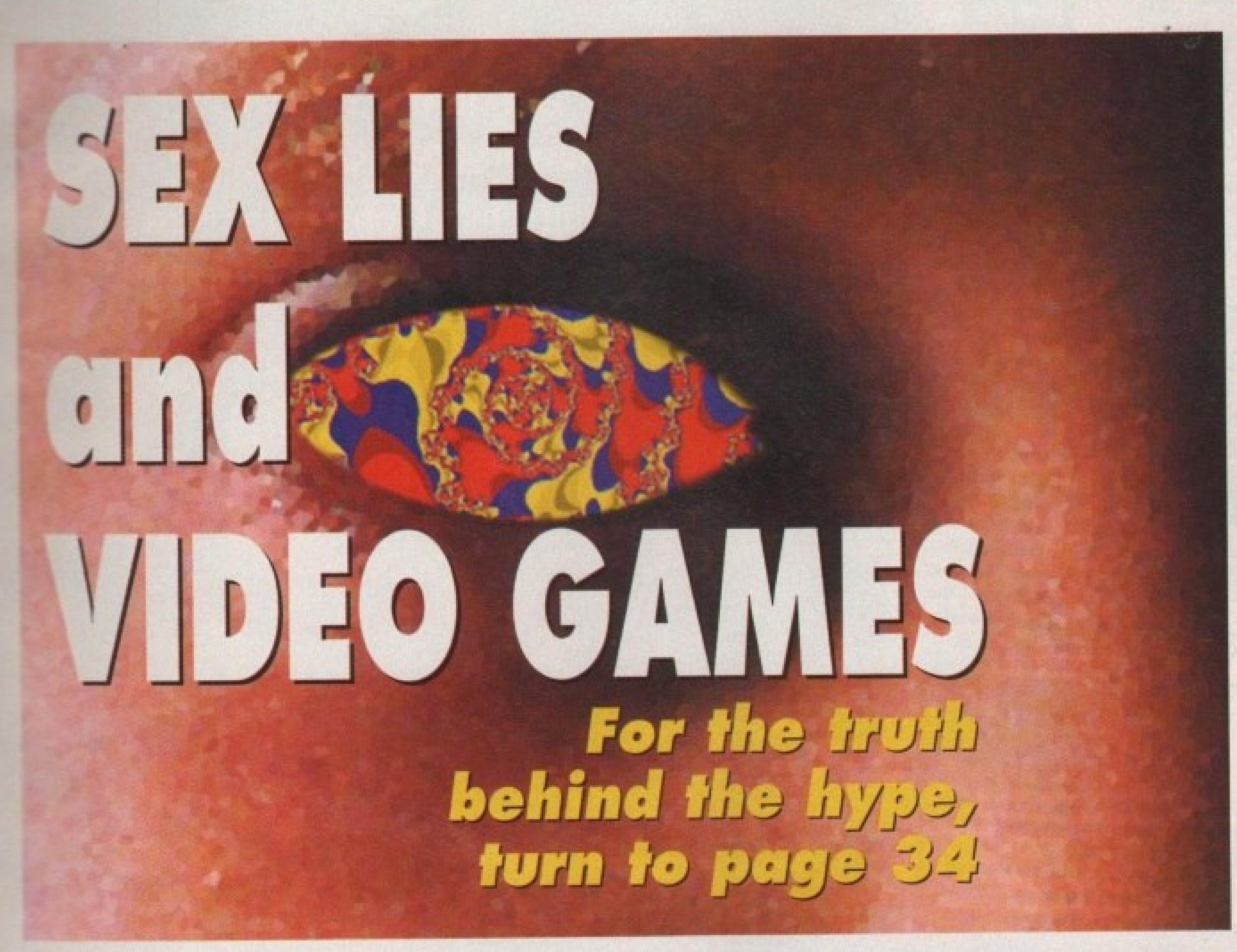
GAMER

Tired of typing, plagued by programming? Pick up a game and play your cares away. Theres plenty to choose from...

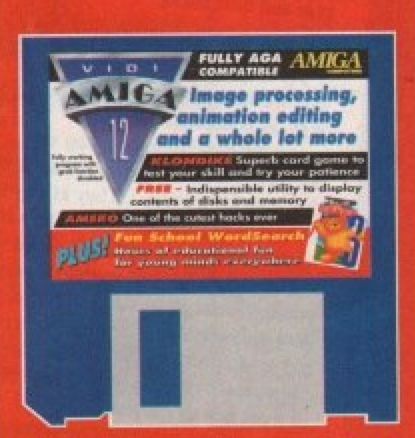
GAME REVIEWS

AMIGA MARKET

The monthly round-up of the latest hardware and software on the market, advice on buying decisions, software spotlight, and much more...



COVERDISK



VIDI AMIGA 12
Try this superb commercial video grabbing and image processing software, enabling you to load images and save them out in any Amiga format, or carry out any one of 12 special effects!

Klondike
This latest version of the Amiga's all-time favourite card game will even let you design your own playing cards

Ameko
A screen saver that's cute enough to cuddle!

Sector-Ed
Carry out a wide range of operations on floppy disk sectors

Turn to page 22 now!

REGULARS

COMPETITION

Your chance to win a colour printer or a top-class hard drive. Turn to page 90 right away.

SAVE £30!

Turn to page 26 for details of our exclusive and unmissable Vidi Amiga 12 offers. Don't miss this opportunity to join the exciting video revolution

The Best Word Publish
(Amiga Forma

Wildlife Report

The Tiger

Large striped cat of Asian jungle and mountain regions. One of the largest of the big cats, the tiger is 3-4 m. (10-13 ft) long, including a tail 1 m. (3 ft) long, and weighs 227-272 kg. (500-600 lb.). Both sexes are immensely strong, enabling them to bring down and overcome animals the size of buffaloes. Their main prey is deer, antelope, wild pigs and bushbucks.

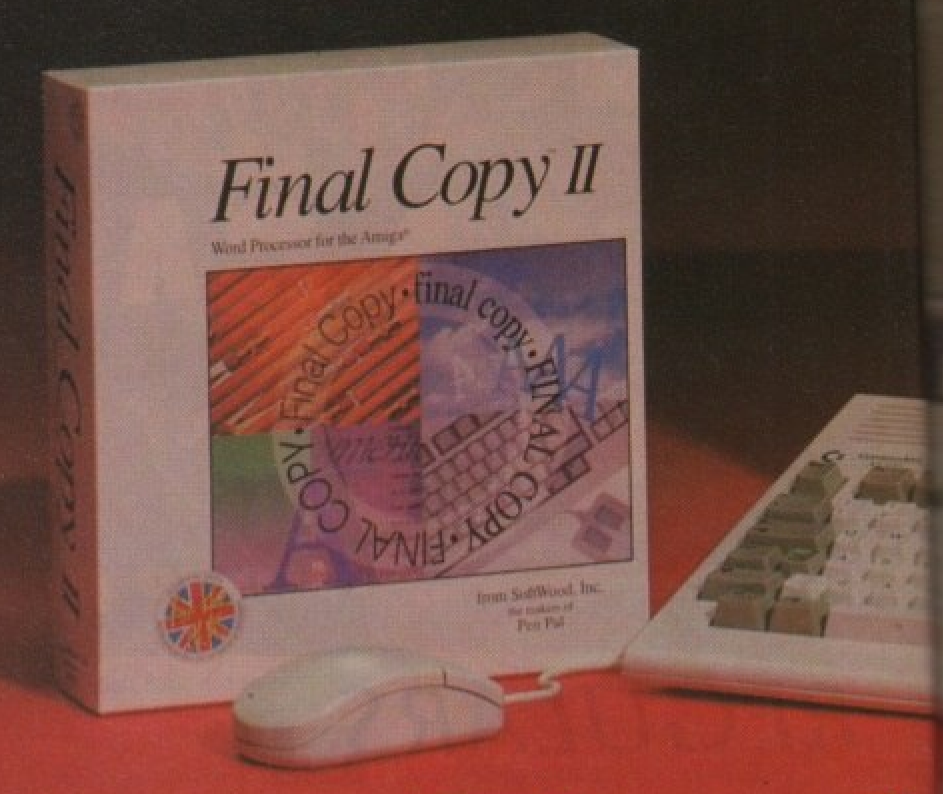
Lacking the stamina for a prolonged chase, tigers rely on their striped markings to conceal their movements as they silently creep up on their victims before making a sudden rush from behind. They kill by first knocking the animal down with a blow of the forepaw, or pulling it down with the claws, then suffocating it with a powerful bite at the neck or throat. Tigers swallow meat in large chunks, using their teeth to cut rather than to chew, and eating up to 22.5 kg. (50 lb.) of meat in a single meal.

Tigers spend the day sleeping or resting and emerge at dusk to hunt. Males are usually solitary animals, except during the breeding season. Each male marks off a territory of from 65-650 sq. km. (25 sq. miles), which contains several females and which he defends against other males, marking the boundaries by spraying a mixture of both his urine and scent.

Tigers once ranged all the way from China to Turkey, but today their range are largely confined to India and South-east Asia, with smaller populations in China, Siberia and Turkestan.

Region of Habitat

We'd simply call it the best Amiga Word Processor. But if after using it, the experts insist on calling Final Copy II the best Word Publisher as well, we're not complaining!



Final Copy coined the phrase "Perfect Printing on **any** Printer".
We mean it - this document proves it!

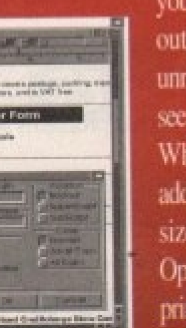
Created in Final Copy II and printed on a standard 24-pin Citizen Swift, it shows a small number of Final Copy II's features: Smooth Scaleable Outline Fonts, Multiple Columns, Drawing Tools for Boxes, Borders, Shadows, Lines and Arrows, White-Out Text, Text Printed over Graphic Images, Text Obliquing, Auto-Flow Text around Graphics and of course, Import of Colour and Mono Graphics Pictures.

Final

Word Publishers go beyond simply producing normal letters and documents (at which Final Copy II naturally excels) and progress into a world where *how the whole document looks* is just as important as *what it says*. Admittedly, this can be achieved with Desk Top Publishers, but they can't easily be used as Word Processors, especially when a good looking letter needs creating quickly - they're far too cumbersome. This is where Final Copy II offers the perfect balance between the two requirements. Ease and speed of use, combined with complete control and perfect final printed presentation.

Document creation is so simple with 28 On-Screen Buttons for routine formatting and navigating commands, like Auto-Hyphenation. With *true* WYSIWYG display, you can even edit whilst your pages are magnified up to 400% (or reduced). Long documents are supported with Title/Master Pages, Style Sheets, Left/Right Page Binding Offset and Auto Numbering. Because your text needs to be perfect, the British-English Collins Proximity Speller combined with the Thesaurus (for that added inspiration) help you to produce the precise, printed page.

Compugraphic, Adobe Type 1 PostScript or Nimbus Q PostScript? If you *want* lots of fonts, you can *have* lots of fonts! Final Copy II can use thousands of superior Adobe Type 1 or Nimbus Q fonts (the same as those used on professional publishing systems). Both these types are PostScript fonts, but unlike all other Word Processors you don't need an expensive PostScript laser to use them! Final Copy II *will* print them on PostScript lasers, *or* any graphics capable printer. This includes the dot-matrix or ink-jet you probably already own. Even if you have your own Compugraphic* font library you'd still like to use, Final Copy II is fully compatible, outputting to any graphic printer. Final Copy II is unrivalled in its range of fonts supported, and as you can see here, you have complete control over text formatting. When using the outline typefaces included, or any additional fonts, they'll output perfectly - no matter what size they're scaled to - with absolutely *no* jaggies! Opening multiple documents also allows editing whilst printing in background mode (free memory dependent).



Compatible with all Amigas from A500 to the latest A1200/A4000 ranges with either a second floppy or a hard drive. A minimum of 1Mb. of available free RAM is required (A600 hard drive - 1.5Mb.) however, as with all advanced

Available from all good Amiga Software Dealers,

or from SoftWood Europe - please phone for a list of nationwide stockists.

...shing Program of its Type
...nas words not ours)



Amiga Format think we have the Best Word Publisher. We'll show you why with a list of features that users tell us are important (below).

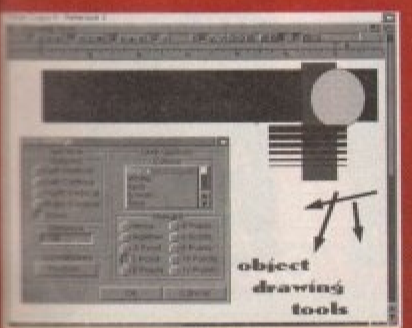
If you'd like to know who's also chosen Final Copy, Commodore specify it as an option with some of the most powerful Amigas available in the United States. What better recommendation could you have?

	Feature	Wordworth 2	Final Copy II
Fonts and Printing	Compatible with Standard Amiga Workbench 2 Compugraphic Fonts	YES	YES, But would Suggest use of Better PostScript Fonts
	Compatible with Standard Adobe Type 1 and Nimbus Q Scaleable Postscript Fonts	NO/NO	YES/YES
	PostScript Font Outlines on all Printers	NO	YES
	Maximum Number of PostScript Fonts	Limited to a total of 35	Infinite
	Download Extra Fonts to PostScript Printer	NO, Can't download extra fonts	YES, Automatic
	Landscape (Sideways) Printing on all Printers	NO	YES, Automatic
	Reclaim Printing Resolution (Quality) of Scaled (Reduced and Enlarged) Graphic Images	NO	YES, Same High Quality when Reduced and Enlarged
	Print any Text or Graphic in Colour	YES	YES
	No. of Colours Printed in Imported Pictures	Limited by Screen Mode Used	Output as Original Image
	Graphics Printing (HAM & IFF ILBM)	Good if Graphics not Scaled	Always Best Possible
	Text Width (Compress and Expand)	NO	YES
	Variable Text Obliquing (Slanted Text) Both Positive and Negative Attributes	NO	YES
Graphics	Box, Rounded Box, Circle, Oval, Line, Variable Border & Arrow Drawing Tools	NO	YES
	Crop (Trim) to Size Imported Graphics	NO	YES
	Supports A1200/4000 AGA Chipset	YES, 256 On-Screen Colours	YES, 256 On-Screen Colours
	Create Border around Graphics and Pictures	NO	YES
Editing and Formatting	British-English Spelling Checker	YES, Collins Proximity with Legal & Medical Supplements	YES, Collins Proximity with Legal & Medical Supplements
	British-English Thesaurus	YES, Collins 826000 Synonyms	YES, Collins 826000 Synonyms
	Page View Magnifications and Reductions	One Fixed Print Preview	7 Variable stages - 25% to 400%
	Edit Document while Magnified or Reduced	NO	YES
	Search & Replace (150 words in 9000, 7 Pages)	61 Seconds (On Amiga A1200)	7 Seconds (On Amiga A1200)
	Index and Table of Contents	YES, Automatic	NO, Requires Manual Entry
	Multiple Newspaper Style Snaking Columns	YES, 2 to 32	YES, 2 to 6
	Style Sheets, Master Pages, Title Pages	NO	YES
	Uses Standard Amiga Clipboard for Cutting & Pasting to and from Different Applications	NO	YES
	Small Caps Typographical Control	NO	YES
Geneeral Features	Conforms to Commodore's Amiga Standard 'Look & Feel' Guidelines	NO, Non Standard User Interface	YES
	On-Screen Maths (Column Addition)	NO	YES
	Import ASCII Text from any Word Processor	YES	YES
	UK Registration, Upgrade and Support	YES	YES
	Free Memory Required	1.5Mb. Minimum More Recommended	1Mb. Minimum More Recommended
	Free Ongoing Technical Phone Support	NO, £38 per year after 60 days	YES, Free of Charge
	Recommended Retail Price	£129.95	£99.95

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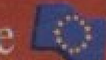
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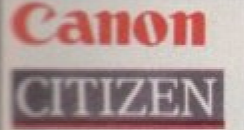
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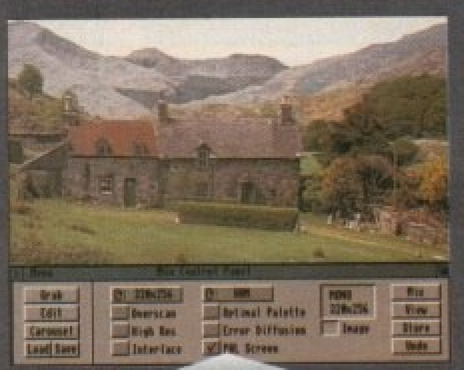
*262000 HAM-8	*4096 HAM	*256 COLOUR
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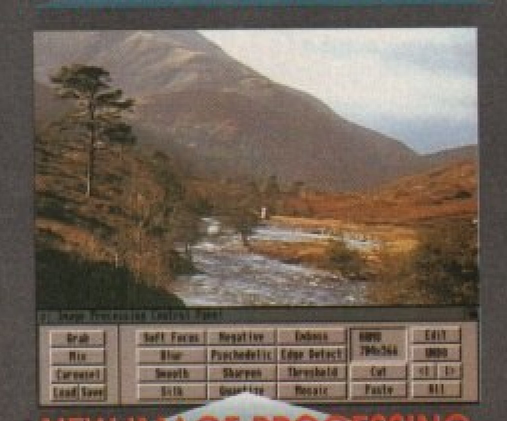
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EC threat to budget software prices

BUDGET software may cost more if a European Commission move to slap a levy of up to 30 per cent on imported disks goes ahead.

The directive follows an appeal to the EC by Diskma, a body representing European disk manufacturers, who are concerned by the number of cheap Far Eastern imports.

According to trade newspaper *CTW*, the Commission has already reviewed the situation twice, but the directive's implementation requires the support of each member country.

Some sections of the industry are now campaigning to split the support, and communication has begun with the UK's representative, Sir Leon Brittan. One industry figure told *Amiga Computing* that the question of retail price rises depends entirely on how much is added to disk costs.

If it was only a small increase most companies could probably absorb it. A high levy would make it necessary to pass rises on to the public. Meanwhile following the report in March's *Amiga Computing* which revealed how buyers could save up to £500 on the price of an Amiga by buying abroad, Commodore boss Kelly Sumner says there are good business reasons for the massive price differences between Amigas sold in Britain and other parts of Europe.



Sumner: Business reasons for you paying more

Britons pay more, he said, because of higher retailers' margins – understandable bearing in mind that many have been hit by high interest rates.

Other reasons include higher UK tax and better support, with a year's on-site warranty for faulty machines. Britain, however, now has one of the lowest interest rates in Europe, and Germany's slightly lower tax makes a difference of about £10 on the price of an A1200.

And the fact remains that if you are looking for a new Amiga, and are not too worried about the level of support you receive, you'll save cash by nipping over the Channel.

Amiga sales in UK are a record

A RECORD number of Amigas were sold in Britain last year but despite this restructuring and inventory write-downs resulted in disappointing second quarter financial figures for Commodore..

The company reports that 340,000 Amigas were sold into the UK distribution network, although some parts of Europe performed less well.

The US company reported a net loss of $77.2 million for its second quarter to December 31, and during the period sales fell from $371.6 million to $237.7 million.

In the comparable quarter of 1991 the manufacturer posted a $40.1 million profit.

The firm says $50 million was spent on restructuring their operation. These costs included redundancy payments in Germany and Hong Kong and starting up a new Philippines factory.

Paint winner for children



AFTER picking up awards on the Apple Macintosh and PC-compatible, kiddies paint program Kid Pix has now been released for the Amiga.

It claims to transform the computer into a magical art studio, every brush and tool within the program having its own sound. Also included is a Talking Alphabet.

The £25.99 package was originally designed for the programmer's three-year-old son and is said to be user friendly and intuitive, enabling children to get to grips with it quickly.

Developed by California-based Broderbund Software, the package will be distributed throughout Europe by Electronic Arts (0753 549442).

A4000 BOOSTS CITY'S OLYMPIC BID

MANCHESTER 2000, the body fighting to bring the Olympic Games to Britain in seven years' time, has bought an A4000 and Scala presentation software to assist in developing its £5m campaign.

The system's first big test was at the end of March when a 16-strong Technical Enquiry Commission visited the Northern city on the first of a procession of Olympic visits.

Mike Dyble, international marketing director of Manchester 2000, stressed the importance of quality presentation to the bid. "We believe Manchester's arguments for hosting the games are very, very strong. So it's crucial to present them in the slickest way," he said.

"The Amiga 4000 proved the perfect choice. We can use it on the Barco system in the presentation suite or ship it off easily for use with a TV screen elsewhere."

Now Manchester 2000's computer operators are meeting with experts in health care, transport, security, architecture and other sectors to put their presentations on the machine.

Said Commodore's multimedia sales manager Mike Gosheron: "The Amiga has a deserved reputation as an unbeatable presentation platform. "We're delighted that Manchester 2000 has chosen to use it in its campaign."

The final decision on the event's location will be announced in Monte Carlo on September 23.

Epson go dotty over inkjet

DOT matrix printer users looking for near laser quality printing at an affordable price are targeted by Epson's new inkjet model, Stylus 800.

With a £379 price tag, it features the manufacturer's new Piezo Multi-layer Actuator Head printing technology to achieve a resolution of 360 x 360 dots per inch.

Four scalable fonts and 15 bit-mapped fonts are included, it has a 32k buffer and can print at up to 150 characters per second.

An indicator warns when the ink cartridge is running low, there is a 100-sheet A4 paper feeder and the machine accepts manual feeding of envelopes and single sheets.

"The excellent print quality and speed offered by the Stylus 800 has created a high-level of interest," said Epson's sales and marketing boss Peter Turner.

"Initial reactions to the printer indicate that Epson can expect to become a major supplier of high performance low-cost inkjet printers."

Joining the education fun

A SHEFFIELD firm have just joined the Amiga education software world, releasing three packages aimed at children aged up to 16.

The company, 10 out of 10 Educational Systems, offer customers a 14-day trial on each of the titles, Early Essentials, Maths Number and English.

Each package contains six programs and is claimed to be linked directly to the National Curriculum and constantly monitor and record the child's progress.

They can be customised to individual needs and cost £25.95 each. The firm can be telephoned on 0742 780370.

News Briefs

Board raided

A US bulletin board alleged to be carrying illegally copied software and sexually offensive text and graphics has been raided by the FBI.

Computers, hard drives, communications equipment and membership records were seized from the Rusty and Edie system.

Ticket blunder

ALL Formats Computer Fairs say that the London Fair due on Saturday April 24 will be held at the Novotel, Hammersmith. Thousands of advance tickets and 1.5 million vouchers list the venue as Sandown Park.

High-End move

HIGH-END Amiga distribution has been extended with Commodore announcing that Micro-PACE are now able to resell A3000 and A4000 computers to other dealers.

The Slough-based firm are familiar to many Amiga users, having acted as an end-user supplier of overseas third-party hardware and software, including Vortex's range of PC emulators.

A1200HD is here

OFFICIAL hard drive versions of the A1200 are now available through Calculus Stores (0543 251275), with full on-site warranty by Wang. They come with either 60 or 80Mb of storage capacity and have Workbench 3 pre-installed.

Sleepwalker goes top

COMIC Relief game Sleepwalker has gone straight to number one in the latest Amiga software sales chart. Ocean Software say they are well on the way to raising £500,000 for the charity.

Midi help

BUDDING musicians are now offered help setting up a working Midi system in a new book just published by PC Publishing. Written by Vic Lennard, Midi Survival Guide is claimed to offer a hands-on non-mathematical approach to make it ideal for anyone starting up with Midi. Price: £6.95.

Industry fights violence claims

THE computer games industry has hit back against new national media claims about the effects some leisure software has on its players. A World in Action documentary – Welcome to the Danger Zone – claimed that video games could cause children to develop anti-social or violent tendencies.

The claims were picked up by several newspapers, and strengthened by criticism of video games from teachers, unions and parent groups. But computer trade body ELSPA took an exceptionally dim view of an article published in The *Daily Star*, reacting with a complaint to the Press Complaints Commission.

Headlined "Breeding a nation of monsters", the story linked a violent society with the popularity of video games and ran alongside a picture of a murdered toddler's grieving relatives.

ELSPA described the report as "utterly unacceptable journalism". They are now planning a campaign to help local education authorities and teachers understand the issue.

● *See Sex, lies and video games on Page 34*


Breedin
of mons
By MICHAEL HELLICAR

Daily Star: ELSPA complains over report

Now ADI meets the juniors

YOUNGSTERS can now improve their counting and reading skills with the latest additions to Europress Software's (0625 859333) ADI educational range.

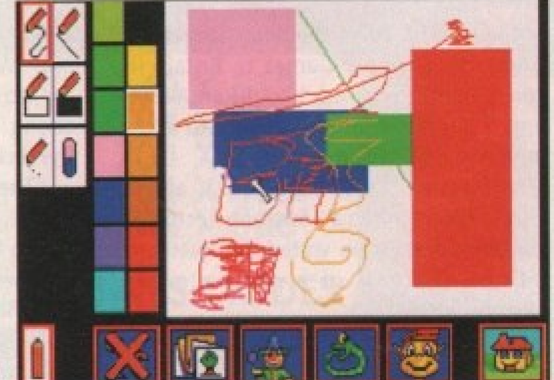
Aimed at four to seven-year-olds, the ADI Junior packages feature games and the popular space character's young cousin.

ADI Junior Reading contains 15 activities in which children are taught to match pictures to words, recognise true or false statements, and all about syllables and plurals.

Each activity has three levels of difficulty in order to suit children of varying ability and contains a help facility.

The other program, ADI Junior Counting, teaches addition, subtraction, multiplication, division, matching figures and numbers and sequencing.

There are two versions of both packages – one aimed at 4 to 5-year-olds and the other at 6 to 7-year-olds. Price: £19.99 each.



ADI: Helping youngsters to count and read

Picture quality from Germany

GERMAN firm BSc (010 49 89 357 130) have just introduced a new 24-bit paint program which fully supports the Amiga's AGA chips.

TruePaint enables users to edit Amiga and 24-bit graphics without any loss of quality, and boasts a maximum resolution of 16,368 x 16,368 pixels with oversize function.

It contains various draw and paint functions, easy drawing of Bezier curves and a facility for editing animation pictures.

Up to 20 macro commands can be programmed and there are text functions with full support of bitmap and CompuGraphic fonts. Several picture formats are supported.

GROWING UP WITH OPALVISION

USERS of OpalVision can now extend their system with new three enhancement modules, as an updated version of the OpalPaint software is prepared for release.

The Video Processor Module plugs into the main OpalVision board to produce a real-time 24-bit frame-grabber and a professional quality genlock with chroma and luma keying.

It includes the OpalVision Roaster Chip for unlimited transitions, colour processing and digital video effects. Controlling software and a 24-bit 35ns character generator are supplied.

The aim of OpalVision Video Suite is to provide a complete audio and video mixing, switching and transcoding device. It is a 19in, rack mountable external unit with nine video and ten audio inputs.

Video inputs and outputs are available simultaneously in RGB or Y/R-Y/B-Y, composite and S-Video. A linear transparency key provides transparency control between two video sources. The audio mixer is fully software sequenced, with smooth fades and full five-band stereo frequency equalisation.

And Scan Rate Converter plugs directly into the main board to convert PAL and NTSC signals to 31kHz for non-interlaced, flicker-free display of Amiga and OpalVision graphics and video.

It operates with any multisync/multiscan monitor and includes a full infinite window Time Base Corrector which operates in RGB.

Prices remain to be fixed, but expect the video processor and video suite to cost about £849.

OpalPaint 2, meanwhile, is a new version of the board's software. The upgrade features new disks and manual and will cost £39.99.

Contact Calculus Stores on 0543 251275.


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MURDERED
Shop video boy is found
'in sex attac

Wordworth supports AGA

DEVON software house Digita International claim that improvements just made to Wordworth make it the first wordprocessor to fully support new AGA graphics.

Additional features found in the package are support for new screen modes and graphics including Ham8 and improved printing speed.

The upgrade cost for existing users is £10. If you're interested in obtaining the latest version telephone Digita on 0395 270273.

CD campaign extends

PRICE-cutting on Amiga CD-ROM drives at Silica Systems (081-309 1111) has been furthered this month, with the dealer now selling A570s for just £149.

The spring promotion is part of Silica's campaign to spread CDs into more people's homes. Buyers are also given a copy of Sim City and CD PD.

"CD technology is really beginning to take off," said Silica's Andy Leaning. "More and more people are finding out just how good this technology is compared to other formats available."

"For existing Amiga owners the A570 rejuvenates their hardware, giving it a new lease of life, with a whole new range of amazing software just waiting to be used."

A1200 GETS A POWER BOOST

ANIMATORS, image manipulators and music designers are to be targeted for Great Valley Products' latest development, a multi-functional SCSI/RAM board for the A1200.

The A1200 SCSI/RAM+ board features 32-bit memory expansion capabilities, a high speed SCSI interface and a socket for a 68883 maths co-processor.

The American peripheral giant will make the unitavailable in two versions: The Low Cost option will include the SCSI interface and will not be fitted with memory.

The other version, Power Up, will be supplied with 4Mb of fast memory and a maths co-processor.

GVP's vice president of engineering, Jeff Boyer, claims: "The board is capable of transforming the A1200 into the ultimate low-cost workstation."

Great Valley Products' (010 1 215 337 8770) British distributor is Silica Systems, who can be telephoned on 081-309 1111.



Colour Shuffler: Enables users to see whole presentation

KEEPING YOU IN CONTROL

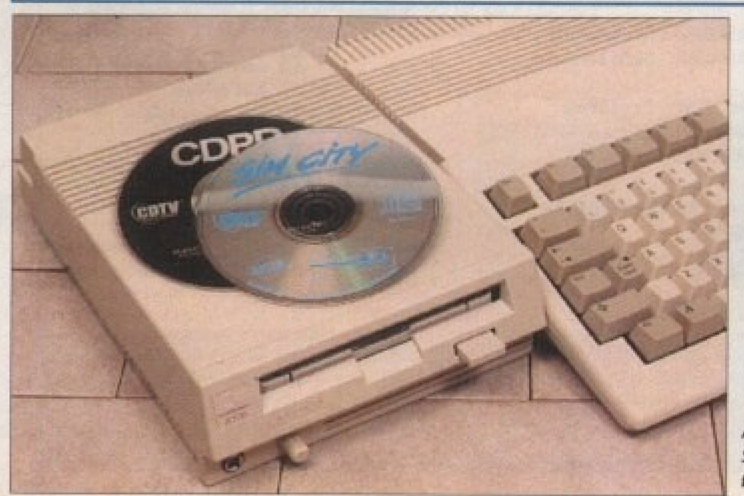
SCALA will soon release an improved version of their information system InfoChannel. IC400 introduces the firm's user-friendly EX system, an external module which enables new controls and features to be easily added to the system.

Working as an integrated part of InfoChannel, EX can control a devices such as video recorders, laserdisc players and 24-bit graphic cards.

It also supports modules for foreign files formats such as GIF, TIFF and PCX, meaning that PC pictures can be used in an InfoChannel presentation with no need for conversion.

ScalaNet automatically updates screen displays through player stations, while Colour Shuffler produces miniature pictures to show the whole presentation at a glance.

Scala UK (0920 444294) supply the package for £1,750 and a one-off player costs £700.



A570: Now Silica sell drives for £149

Diary Dates

4 to 6 April 1993
European Computer Trade Show
Organiser: Blenheim
(081-742 2828)
Venue: Business Design Centre, London
New software and hardware is previewed to the industry. No public admission.

11 April 1993
All Formats Computer Fair
Organiser: Bruce Everiss
(0608 663820)
Venue: Corn Exchange, Brighton

17 April 1993
Venue: Jesse Boot Centre, Nottingham University

18 April 1993
Venue: National Motorcycle Museum, J6 M42

25 April 1993
Venue: Brunel Centre, Bristol
Bargains to be found on all types of hardware and software.

23 to 25 April 1993
Midi Music Show
Organiser: Westminster Exhibitions
(081-549 3444)
Venue: Wembley Exhibition Centre
Catch up with the latest Midi products.

16 to 20 September 1993
Live '93
Organiser: News International
(071-782 6000)
Venue: Olympia, London
A public consumer electronics show. Commodore plan to attend.

19 to 21 November 1993
International Computer Show
Organiser: Westminster Exhibitions
(081-549 3444)
Venue: Wembley, London
Discounted software and hardware and a few product releases.

OVERSEAS

24 to 31 March 1993
CeBit
Organiser: Deutsche Messe
(010 49 511890)
Venue: Hanover, Germany
A massive electronics show which has been used for the launch of many new products including the A600.

● If your company is organising a show relevant to the Amiga and it's not listed, let us know.so we can include the information in the diary.

CompuServe cut connect costs

WITH the introduction of a slightly higher monthly subscription fee, on-line information service CompuServe have slashed connect time charges by more than a third.

The move affects members using the firm's Standard Pricing Plan, who can have unlimited access to 36 services such as news, travel, and games for $8.95 a month.

When using some other services, members pay an $8 hourly charge for access at 1,200 or 2,400 bits per second. 9,600bps access costs $16 per hour.

Previously, there was a monthly fee of $7.95 and hourly charges of $12.80 and $22.80 for access at 1,200/2,400 and 9,600bps respectively.

"In essence we have made accessing all of CompuServe's many services much more affordable," said CompuServe's executive vice president Barry F. Berkov.

"A year ago we introduced the Standard Pricing Plan in response to our members' growing desire for flat-rate pricing.

"These changes let members save money when using services not covered under the flat rate, such as the forums."

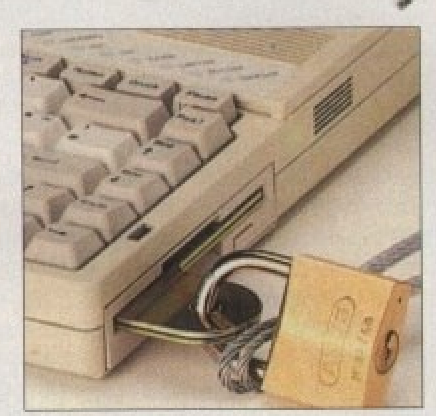
The American communications giant have also axed surcharges for members accessing the service through all CompuServe nodes in Europe during non-prime hours.

CUNNING COMPUTER CRIME

PROTECTING computers from theft, copying of confidential information and malicious input such as viruses is the aim of HF Computer Lock, a new device from Sweden.

It consists of two plates which can be inserted into the Amiga's floppy disk drive and secured with a padlock. A wire can be attached to secure the machine to a fixed object.

Depending on the level of protection needed, the lock costs between £60 and £85. The British distributor is Scandum Instruments (0454 418850)



Lock: Securing against crime

InfoChannel takes to sea

CRUISE ship MS Statendam of Holland America Line has recently installed Scala's Amiga-based InfoChannel system and a specially developed map system that covers the world.

The exact position of the ship can be viewed on TV monitors in all cabins and before each call, InfoChannel displays information on the port or city.

It shows tourist attractions, shopping and other facilities on land. Several ferries in Scandinavia also use the system to display information and advertisements.

More battles go on-line

THE company behind several multi-user modem games, On-line Entertainment (081-558 6114) have just added battle simulation Napoleonics to their system.

Waterloo, Borodino and Austerlitz battles feature 3D graphics and each subordinate commander and captain has built-in artificial intelligence.

Budget trio is launched

THREE budget-priced programs have just been launched for the Amiga by Essex Computer Systems (0268 553963) – Stock Controller, Home Brew and Post & Phone Codes.

Stock Controller is intended for use by small businesses. Its features include a low stock warning, stock search and supplier details. It also contains a record printout option which lists minimum stock levels, current levels and stock sold and bought.

Home Brew is a collection of original recipes which contain only natural ingredients, without the use of chemicals. Files can be printed for ease of use. Hints are contained for beginners and as well as a line up of tips for experienced wine makers.

And the third title, Post & Phone Codes, contains two databases. The first lists 1,300 UK postal codes and their respective towns. Files can be searched, saved, added or deleted.

The second disk, STD Database, enables users to search for either a code or town by typing in the necessary information. Each package costs £4.25.

Summer show date shifts

SHOW organiser Westminster Exhibitions have re-timed the year's second International Computer Show to November 19 to 21. The move follows several years when the firm held the year's second event during the summer. It is claimed that more than 85 per cent of exhibitors have already booked space.

"We have decided to go for a November show for the first time as a result of considerable pressure from our exhibitors," explained Westminster's marketing director Julie Collins.

"Their overwhelming response has been that our show provides the greatest opportunities and most enthusiastic audience of any exhibition in their calendar.

"Our first pre-Christmas show aims to maximise and take full advantage of this."

KNOW SOMETHING WE DON'T?

Although *Amiga Computing* has scores of contacts in the Amiga world we need you. If you have some hot news ring John Butters on the news desk now on 0625 878888 or fax to 0625 879966. All information will be treated in the strictest of confidence.

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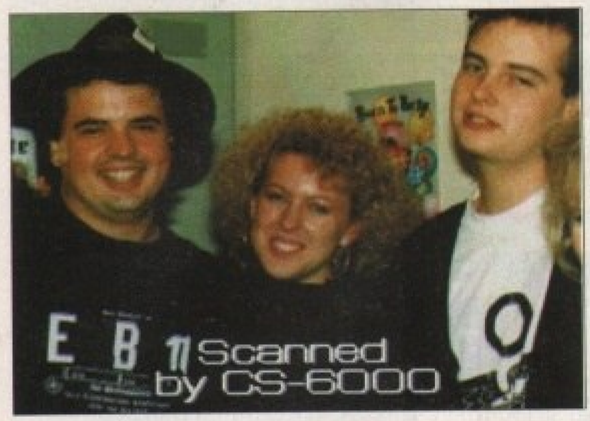
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Rainbow scanning



Scan your favourite snapshot memories and store them in full AGA colour on your Amiga

Looking for a way to get your favourite pictures into your Amiga? Your best bet for easy scanning is a 24-bit flatbed scanner such as the Epson ES800, but that's an expensive solution.

If you're looking for something more reasonably priced, check out Migraph's new CS-6000 colour hand scanner.

This $549 (£381) hardware and software combination will scan up to 262,144 colours at up to 400 dpi.

It has a four-inch wide scanning window, so you'll need to run it over a standard-sized sheet twice to scan in the entire page. Migraph sells a scanning tray which makes lining up the two scans fairly simple.

The scanner, which attaches to the parallel port of any Amiga, has five scan modes – super colour (262,144 colours), colour (4,096 colours), greyscale, mono halftone, and mono line-art. According to Migraph, it's the only hand scanner for the Amiga that supports true greyscale scanning. Six scanning resolutions, from 50 to 400dpi, are supported.

The scanning software works with Workbench 1.3, 2.x, and 3.0, and fully supports the AGA chipset. It requires 1Mb of RAM, but 2Mb are recommended.

If you're tired of re-typing text from paper into you computer, the CS-6000 scanner can be used with Migraph's OCR software to convert text in scanned graphics to Ascii data, which can then be cleaned up in your favourite wordprocessor or DTP program.

For further information on Migraph and its products, call (206) 838-4677 or fax (206) 838-4702.



Denny Atkin reports from Florida on the latest news

Cache in your chips

Looking for a way to speed up that sluggish old hard drive? Do you yell "tea-time!" every time you try to load a large program off your floppy drive?

If you've got a little RAM to spare, Silicon Prarie Software has the solution for you. HyperCache Professional is a smart disk-cacheing program, similar to ASDG's old Facc II. Unlike that program, though, HyperCache Professional supports hard drives, CD-ROM drives, and just about any other device you can attach to your Amiga.

HyperCache speeds disk accesses by storing recently read data in RAM. When you've read information once, it's stored in memory so it can be retrieved from speedy RAM if your Amiga looks for it again, rather than a slower disk drive.

HyperCache uses an "N-way associative look-ahead cache system". In plain English, this means that it not only keeps recent information in memory, but it also actually seeks ahead on the disk, so that it can actually read new information before you need it.

This mean that not only do operations like compilations and database searches speed up considerably, but so do first-time read procedures such as opening Workbench windows or getting directories of new disks. The speedup is considerable. On my Amiga 1200, rescanning a directory that took seven seconds to scan the first time takes less than one second with HyperCache running. Speedups with disk-intensive operations such as compiling a program in C are even more dramatic.

If you use a disk drive with your Amiga (and who doesn't?) you owe it to yourself to get HyperCache Professional. It works on all Amigas with Kickstart 1.2 or greater. You can even create a small cache on 512k machines, but you need 1Mb or more of RAM to make the program really useful.

HyperCache Professional retails for $49.95 (£35) and add $3 for overseas shipping – in US funds. Contact Silicon Prarie Software, 2326 Francis Street, Regina, Saskatchewan, S4N 2P7 Canada; (306) 352-0358.

If you have access to Internet email you can contact the author at plummer@hercules.cs.uregina.ca.

```
WShell 5 | CHIP 1683 FAST 5381 |
5.Work:> summary
+------------------------------------+
|   **** HYPERCACHE SUMMARY ****     |
+------------------------------------+
| Device      | scsi.device          |
| Units       | 0                    |
| Reads       | 4266                 |
| Read Hits   | 2770                 |
| Hit Ratio   | 64%                  |
| Writes      | 48                   |
| SectorSize  | 512                  |
| Prefetch    | 4                    |
| Lines       | 32                   |
| Sets        | 8                    |
| Cache Size  | 524288               |
+------------------------------------+
5.Work:>
```

HyperCache Professional stores frequently accessed information in RAM, speeding disk accesses

Motorollin'

The veil has been lifted from Motorola's next-generation chip, the 68060. This powerhouse will be constructed from over two million transistors.

Unlike the 68040, the 68060 will be manufactured using CMOS processes and optimised for 3.3 volt operation; this means it should avoid the heat problems associated with the 040, and will even be viable for use in laptop computers.

Since the 060 is slated to around the beginning of 1994, about the same time the next-generation CMOS Amiga graphics chips are to be unveiled, Commodore will have all the parts necessary for a killer Amiga laptop.

The chip has a super-scalar architecture, and uses a dual-pipelined instruction scheme so that two instructions can execute simultaneously. If the program also uses the floating-point unit (FPU) for maths work, three instructions can be started in a single processor cycle.

The initial 66MHz version should run at about 100 million instructions per second (MIPS); a 100MHz version is expected later.

Progressive price reductions

Jealous of the speed of the perky new A1200s? How would you like to leave the rapid new machine in the dust?

Progressive Peripherals are blowing out their 68040 accelerator boards for the A500, A1500/2000, and A3000 at incredibly low prices.

Some US mail-order dealers are selling the boards (sans RAM) for only $550 (£382). So if you're looking for a bargain method for speeding up your classic Amiga, check with your local Progressive Peripherals purveyor.


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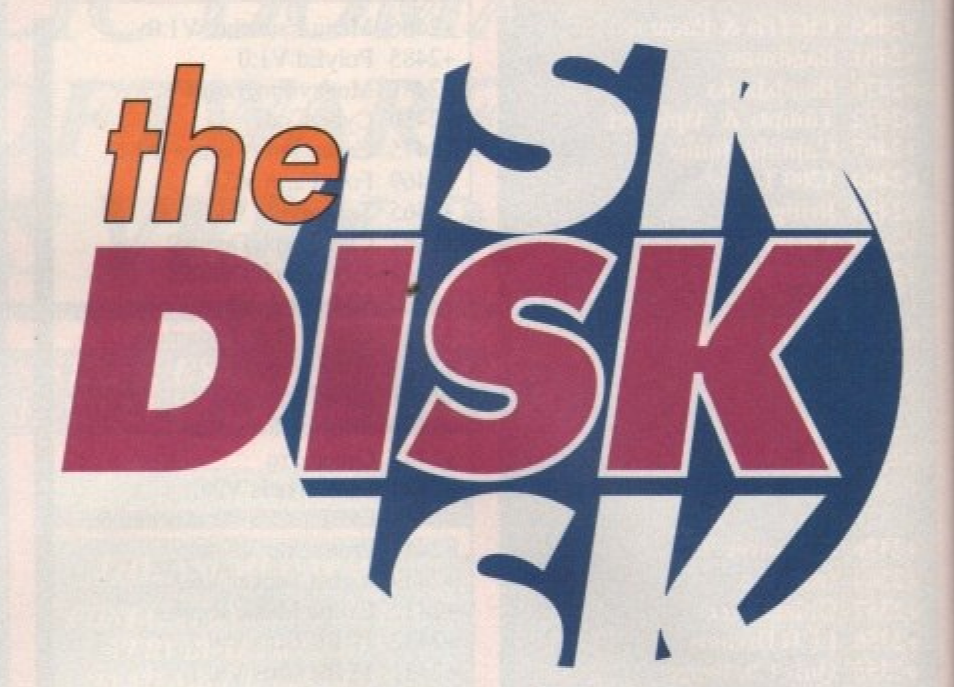
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We asked Rombo to make a few changes on your behalf and they came up trumps for us, improving an already excellent product just for your benefit.

But if you don't already have a Vidi-Amiga 12 there's no need to worry, as the program on the CoverDisk is a special version that lets you access all of Vidi-Amiga's powerful features except for the grabbing functions – which are disabled in this demo.

New features

So what's new in v2? For a start there is now support for almost every available Amiga graphics format, from two-colour IFF all the way up to Ham8, and the ability to save in 24-bit as well as 12-bit and all the regular ILBM (IFF) formats.

Then there is the considerably improved Carousel. Both grabbed sequences and external files can be loaded and displayed from here – and the speed, direction and extent of playback can be easily determined.

Conversion from one format to another is a brand new feature provided by the Mix function and the software is now able to change an image from one Amiga format to virtually any other, including all AGA graphics modes.

Palette selection and error diffusion have also been improved to once more increase the quality of Vidi-Amiga 12's grabbing and image conversions. More functions and image processes have been added to the Edit menu and sections of an image can now be cut and pasted.

Because of overwhelming user demand, time-lapse grabbing has been added and the user interface and Load and Save requesters have been greatly improved. Now you know what's new, let's get going with the demo.

If you are running from a floppy disk just insert the CoverDisk into your drive and reboot your Amiga. Then find the VidiAmiga12 icon and double click on it. In a twinkle the program will be up and waiting for your commands.

If you have a hard drive you can take advantage of the Install procedure supplied by double clicking on the appropriate icon (Install WB1.3 for non-Workbench 2 users or Install for WorkBench 2 or greater).

If you want to install the software by hand you must be sure to put the VidiAmiga12V2.config file in your S: directory and the ARP.library in your Libs: directory. Then drag the VidiAmiga12 program icon into your chosen drawer. Double click on the program icon to get started.

The first thing you should see is a message window overlaying the main Vidi-Amiga12 window. Read it and then click on the front-to-back gadget at its top right-hand corner. The main Vidi-Amiga12 window should now become fully visible.

Click on the box labelled Grab and nothing happens. That's because the grab function is disabled. But no matter, there's plenty more to see....

However, before we can look any further the first thing we must do is load an image, and (surprise, surprise) we've provided one for you to play with. It's a picture of your favourite editor, Mr Stoat (just kidding).

So go for it – click on Load and when the requester appears load the Stoat file from the floppy disk. Hard drive users may like to transfer this file across to save a bit of loading time later. After a brief pause (and a couple of different messages) nothing appears to have happened!

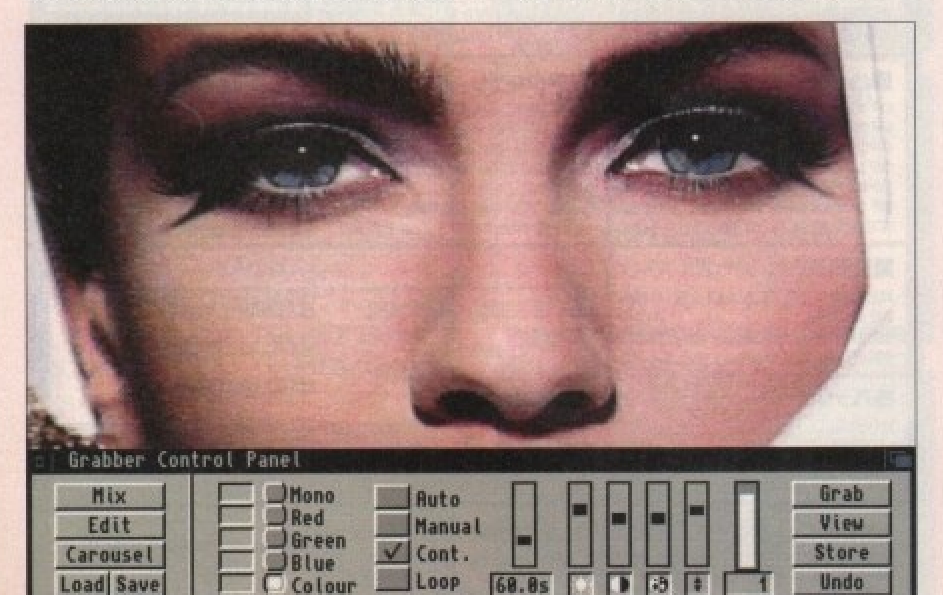
But a click on the Carousel button will prove this to be wrong, as a new screen will appear with a small black and white image (which sort of resembles a stoat) in the top left corner.

Picture album

Although this doesn't look very impressive the Carousel is actually a very useful part of the software, as we shall see later. It is like a picture album, but showing only a representation of each image which is currently loaded into memory.

Click on the image and the red border will disappear. You have just deselected the image. Click again and its red border will reappear and the image is once more selected.

Now click on the Play button at the right of the tool bar. If you have an AGA-



Upgrade to the Vidi 12 hardware option for high quality grabs

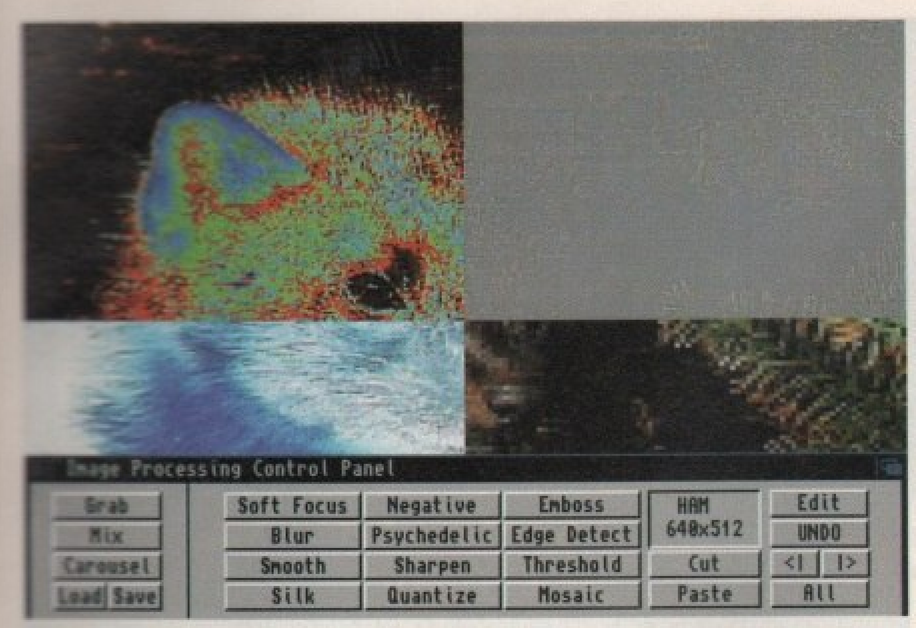
Close to the edit

What about Vidi-Amiga 12's image processing capabilities? Once again, make sure you have an image available and then select the Edit button to find out more.

Now you should see a new menu selection with a number of different names, such as Mosaic, Emboss and so on. Each of these buttons indicates what will happen to the image when it is processed.

Be warned though, some of these operations can take quite a while to complete, so hang on a moment before you get too trigger happy! Notice the words Cut and Paste? These mean that you can clip a section from an image and paste it down somewhere else – even on another image if one is available.

Use the forward and backward gadgets (marked <| and |>) to move through the currently available images. Load a few of your own or use an animation to try this out.



A few of the excellent image processing effects in use

equipped Amiga then you should see a picture of a stoat – in glorious hi-res HAM.

If you have a non-AGA Amiga you'll see a message that says "Image Display Mode is not available on this Amiga". Don't tear your hair out though, since Vidi-Amiga 12 can convert images to other formats. All we need to do is to make sure the stoat image is still highlighted in red and then click on the Mix button, whereupon a new tool bar will appear.

You'll still have the display message on-screen, but disregard it for now. Click on the relevant boxes so that ticks appear next to Interlace, PAL Screen and Error Diffusion. You should see "320 x 512" and "HAM" displayed in the long boxes directly beneath the words "Mix Control Panel".

Now press the Mix button. A fuel gauge appears and shows you that processing is taking place. When it is full a picture of a stoat should appear on screen.

Clicking the left mouse button returns you to the Mix menu. Press View to see the image again. To record the image into memory, press Store. This will replace the original image in memory, so make sure this is what you really intend to do!

You will then be returned to the main window and you can save the new image permanently to disk if you wish. Return to the Carousel window and you'll see no immediate change, but if you look more closely you'll find that where before it said "640 x 512" in the panel it now says "320 x 512" – the size of your new image.

Try loading the original stoat image once more and press the button labelled "320 x 512". It will revert to "640 x 512". This is because Vidi-Amiga 12 splits loaded images up according to their size and resolution so that they will always be compatible with their neighbours. So you've now seen how to load an image and Mix it to a new format. But what about animations?

Obviously, since we can't grab an animation sequence directly with this demo version, we'll have to supply our own for now.

Load a Deluxe Paint animation of your choice. You should soon see a series of small images in the Carousel – one for each of the animation frames. Make sure they are all outlined in red (ie selected) and then press Play.

The animation will play back. You can speed it up with the small vertical slider and change its direction with Forward/Reverse/Bounce. If there are more frames than will fit on one page they can be accessed by clicking on the red and grey triangles located on either side of the viewing area.

Incidentally, if you'd grabbed a sequence of images they would all appear in the Carousel – just like this animation does. Deselect a few frames of the animation and press Play again. You'll see that playback is now jumpy because the deselected frames are no longer shown.

Press View and full continuity will resume, because View plays back all the ➤

Faulty disk?

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If you bought your magazine from a shop and found that the CoverDisk was damaged, please return within two months to: Stanley Precision, Unit F, Cavendish Courtyard, Sallow Road, Weldon North Ind Estate, Corby NN17 1JX.

Ameko

C A Revell

Ameko is a sort of screen saver but with a difference. When you call it up, a window will open with a small cat in it and you will be greeted with a meaow. If you then move your mouse around the box, the cat will run after your mouse pointer.

When you move the mouse pointer outside the window, the cat will scratch at the edges to try to get to your mouse pointer. If you don't move the mouse pointer for some time the cat will then clean itself and go to sleep. To awaken it simply move your mouse.

We have included two versions on the CoverDisk, Ameko_Lo which is the lo-res version and also Ameko which is the hi-res version. It's best to try both to see which looks the best on your particular monitor.

You can alter certain parts by clicking once on Ameko's icon and then selecting information from your Workbench pull-down menus. From here you can alter how large a window Ameko opens up into and also how long it takes for the cat to go to sleep.



Cute or what?

Klondike

Pete Wiseman

People who love playing card games are going to love Klondike as it is an extremely good version of patience. Klondike has been on the CoverDisk before but this new version has been improved so much we had to put it on again.

Patience, for people who don't know, is a card game played by one player. The object is to end up with four piles of cards at the top of the screen running from Ace to King, in the same suit.

This version of Klondike allows you to create your own custom card faces and backs, using any kind of paint package. To do this, simply load one of the card backs which are on this disk into say DPaint, where you can customise the card backs into your own design.



Probably the world's most addictive card game: Klondike

Fun School's Wordsearch

Europress Software

This is our third and final module from the Fun School range of educational software. Wordsearch is not only fun to play but is also educational.

To load it, double click on the Fun School icon. Once loaded the computer randomly selects a group of words from a particular subject, ie months of the year. The computer will then jumble up these words and display them in the box on the right of the screen.

The idea is to get your child to try and find all of the words which are hidden in the box, from the list on the left of the screen.

If your child thinks he or she has found a word listed in the box, all they have to do is click with the left mouse button on the first letter of the word, and drag the line to the last letter of the word they have found.

They then have to select from the list on the left the word they think they have found in the box.

If the child has chosen correctly, the word will be removed from the list. The game ends when your child has found all of the words – he or she will then be asked if they want to play again.

If "yes" is selected then the computer will load a new set of words and restart the game.



frames, regardless of their selection status. I'll leave you to explore the few remaining aspects of the Carousel yourself.

MLet's now examine the Mix functions in a little more detail. Make sure you have the original Stoat image loaded and select Mix. Now try out a few combinations of buttons – hi-res, lo-res, HAM, 256-colour – whatever you feel like.

If your Amiga can't display the results you'll be informed about it. Note the startling difference that using Error Diffusion makes to the quality of a converted image, especially when you are reducing the number of colours it contains.

Remember too that you'll be able to keep converting to your heart's content, so long as you don't Store the new image, as the original is held in memory until it is replaced by issuing the Store command.

OK, we all know by now that the Grab function is disabled on this special version, but aren't you just a tiny bit curious about what it does? Good! I'll tell you then. This is really the main reason for owning a Vidi-Amiga 12, because when you connect a video camera or deck to the Vidi-Amiga 12 hardware it's possible to create great looking images yourself.

Any video camera or deck with either composite or S-VHS video output is suitable – and older mono cameras can be used too, though you'll need to use colour filters to capture colour images. Point the camera at your chosen subject, select the size and format of your desired result, then grab. Within seconds you should have an image captured in your Amiga, ready for use as you wish. Vidi-Amiga 12 doesn't limit you to just single images – you can also grab sequences. To ensure that they are grabbed as quickly as possible (to keep the motion as fluid as possible) sequences are only grabbed in mono, even if the source is colour.

Even so, the images make a good basis for redrawing into your own animations (a process known as Rotoscoping). If you like to draw your original artwork on paper you could also use Vidi-Amiga12 as a line tester, allowing you to get fast feedback on whether the character motion is the way you want it to be.

And now that time-lapse grabbing has been added it is possible to tell Vidi-Amiga 12 how long to wait between grabs – anything from a second to 30 minutes – so you can make your own animations of flowers opening, snails racing and so on.

Whatever, grabbing images with the Vidi-Amiga 12 can be very satisfying and it really does represent excellent value for money – particularly at the special price being offered to *Amiga Computing* readers.

If you've always fancied getting a video digitiser but were worried about the cost, here's your best ever chance to take those first steps into the worlds of video, digitising and animation. Good shooting!

See page 26 for our fantastic Vidi Amiga 12 offers

Carousel enables users to edit their animations

Free

Gary Crean

Free is a small program which keeps you informed on how much memory you have and also how much is in use at any time. It will also tell you how much free space is left on any of the disks in your disk drives.

With this program being so small, you can load it every time you load Workbench – you will then be able to keep a check on available memory and disk space at any time.

If you hold down the right mouse button you will see a menu. From here you can change which drive the program is checking. Free will only check floppy drives, not hard drives.

Keep track of RAM and disk space with ease

Sector-Ed

Gary Crean

This program can only be called up from the short-cut menu. Sector-Ed is a very powerful program which is designed to read sectors directly from floppy disk. It also allows you to change information which is stored on the disk. Due to the power of this program you should only use it after reading the documents.

You could use it to change words which are contained in programs, for instance if a program contained swearing then you could, with a little knowledge, change the words to more suitable ones. We must stress that using programs of this nature can lead to loss of information on the disk you use if you don't fully understand what you are doing.



Save any bootblock to disk or install a new one

BootMaster

Pete Bullock

If you have owned an Amiga for sometime then you must have fallen prey to some kind of boot-virus. Boot viruses rewrite the boot sectors on your disks making them unusable.

There are quite a few virus checkers on the market today but these usually only detect viruses and kill them – they can't replace bootblocks that have been damaged.

This is where BootMaster comes to the rescue. The best way to protect from virus damage is to take precautions before it actually happens. BootMaster enables you to read and then store the bootblocks from your disks as small files onto disk.

Then in the unhappy event of the bootblock from one of your disks being erased due to a virus, you can simply use BootMaster to read the original bootblock back from the disk you saved it onto and then place it back onto the original disk.

CoverDisk Hotline

Hotline number: 0625 859766
Between 2pm to 5pm every Thursday

If you are experiencing problems with the CoverDisk then contact our Technical Editor, David Dibnah, on the CoverDisk Hotline. The Hotline number is only available between the times stated above, so don't waste your time trying to ring outside this time.

GETTING STARTED

The *Amiga Computing* CoverDisk is designed to be as simple to use as possible. Follow these instructions and you'll be up and running in no time!



New readers may have difficulties using our CoverDisk, so we have included this page to help you out.

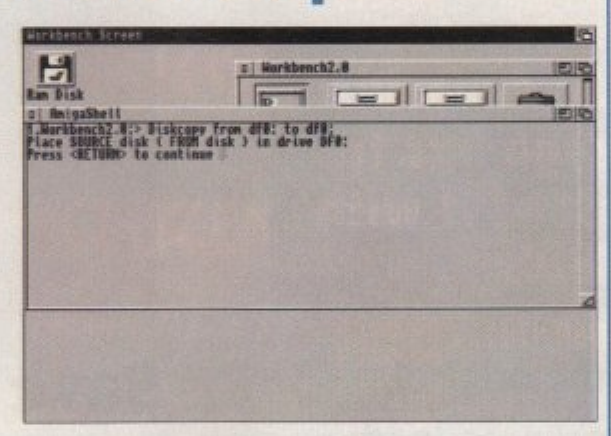
Below we explain how to copy files from one disk to another, how to copy the entire CoverDisk and how to de-archive programs. none of the first things you must do when get your CoverDisk is make a backup copy, then put the original CoverDisk away for safe keeping. As a rule you should also do this with the majority of your software collection.

How to make a backup

To copy the entire CoverDisk, load up your Workbench disk, then either click once on the CoverDisk icon and select Duplicate, or select Copy from the Workbench menu, or open CLI/Shell and type:

```
DISKCOPY FROM DF0: TO DF0:
```

When prompted, put your CoverDisk (the source disk) in df0: and be ready to replace it with your blank disk (the destination disk). Follow the Amiga's on-screen prompts until the disk copy is completed. Now put the original away in a safe place and use your backup.



Copying individual files

You might at some point want to copy a single program from a CoverDisk to your compilation, Workbench disk or even your hard drive.

To do this you'll need the COPY command. As most CoverDisk programs are stashed away in their own directories, the quickest way to copy a program is to copy the whole directory at once. Use the command:

```
COPY {directory} TO {newdisk} ALL
```

where {directory} is the full pathname of the directory you wish to copy, and {newdisk} is the name of the disk and directory into which it will be copied.

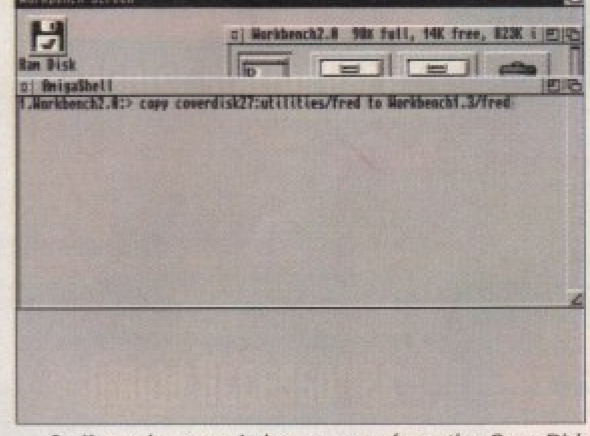
For example, if you wanted to copy a utility called FRED from CoverDisk 27's Utilities drawer to a directory called FRED on your Workbench disk, you'd type:

```
COPY COVERDISK27:UTILITIES/FRED TO WORKBENCH1.3/FRED ALL
```

Alternatively, you can click once on the FRED directory icon and drag it across to the new disk's window. This has the advantage of creating a new directory for you and copying the icon as well.

Once you have moved a particular program to where you require it you could experience some problems running the program. This is sometimes caused by the program not being able to find files which it needs to run.

A good example is the text files on the CoverDisk. These have been crunched using PowerPacker, so when you try to copy them to another disk and then try to read them you can't unless you have also copied the Powerpacker library into your LIBS drawer.



So if you have copied a program from the CoverDisk to your Work disk or hard drive make sure you also copy any other files the program requires, ie fonts, libraries, device drivers and Ccommands.

De-archiving

Occasionally we have so many programs to fit onto the CoverDisk that we have to archive them. Archiving is where we take the entire contents of a disk and compress them into one file which is much smaller, giving us space to fit more programs onto the disk.

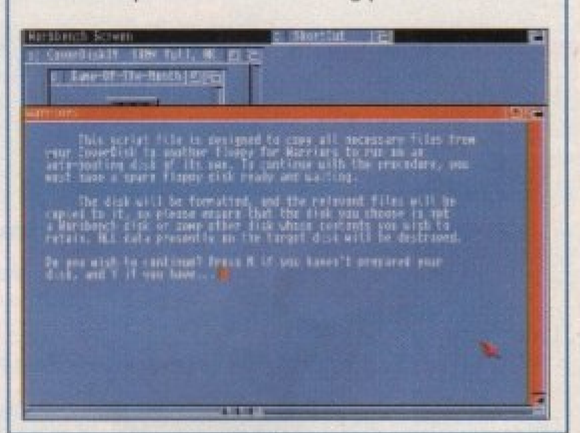
Dearchiving programs which are on the CoverDisk is a very simple task. If a program has been archived then you will need a blank disk to dearchive it onto.

Say we have archived a program called FRED. You simply double click on FRED's icon, and will be asked if you have a blank disk ready to dearchive to. Type "y" or "n" accordingly.

Your computer will then copy the archived file into its memory and ask you to insert your blank disk. It will proceed to format the disk, and will then de-crunch the archived file onto your blank disk.

Once this has been done you can simply reboot your machine with the disk which contains the dearchived program on it and then use the program as instructed in the CoverDisk pages.

Note that if you have a Workbench 2 or upward machine you must boot with the CoverDisk write-enabled to perform the dearchiving process.



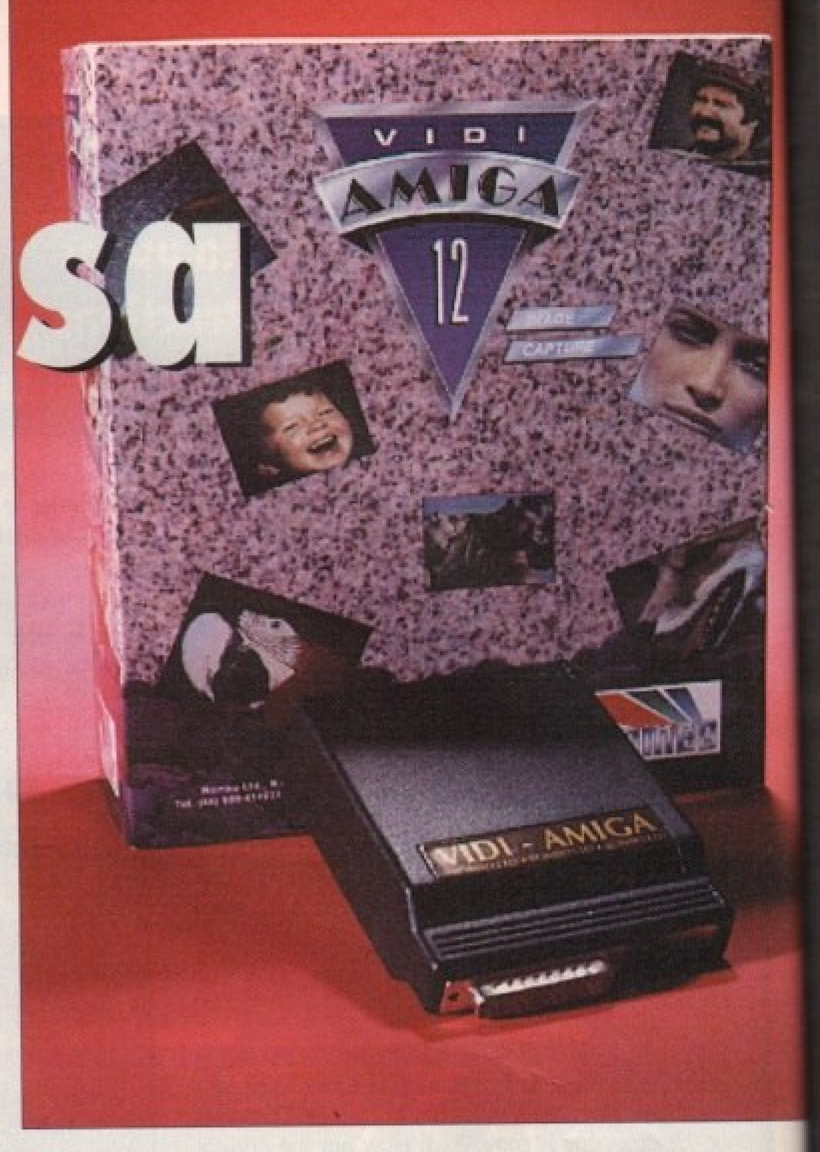
Workbench 3

If you have a Workbench 3 machine, don't worry – most if not all of the programs on the CoverDisk will work on your machines.

If the program is specifically designed to work with Workbench 3 then you may have to copy the program to your hard drive or Workbench disk using the process described earlier on this page.

Grab loadsa lolly

with these Vidi-Amiga12 v2 special offers



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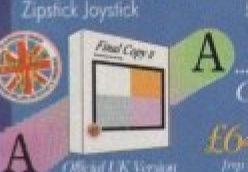
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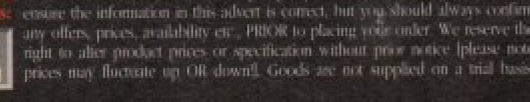


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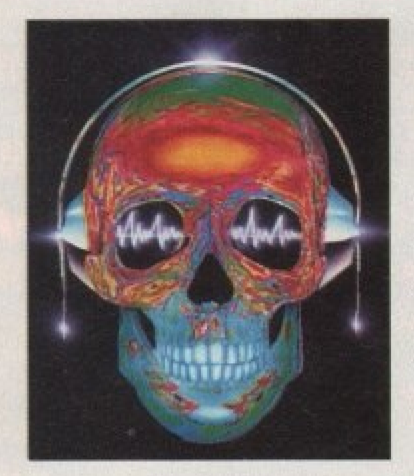
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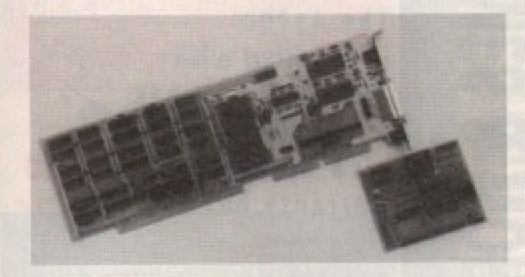
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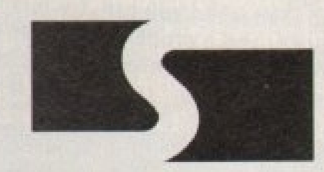
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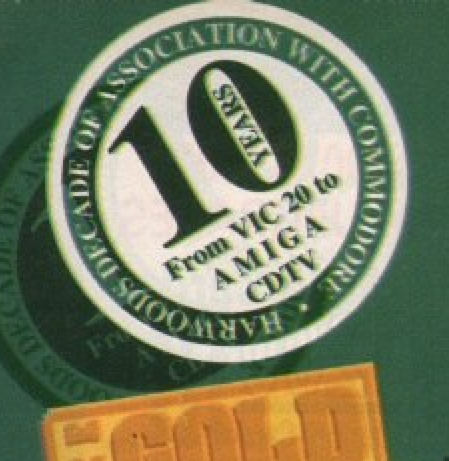
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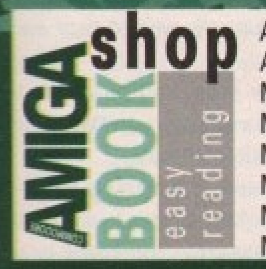
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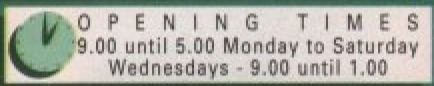
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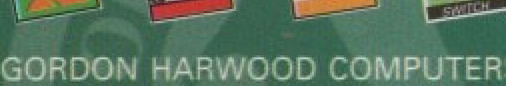


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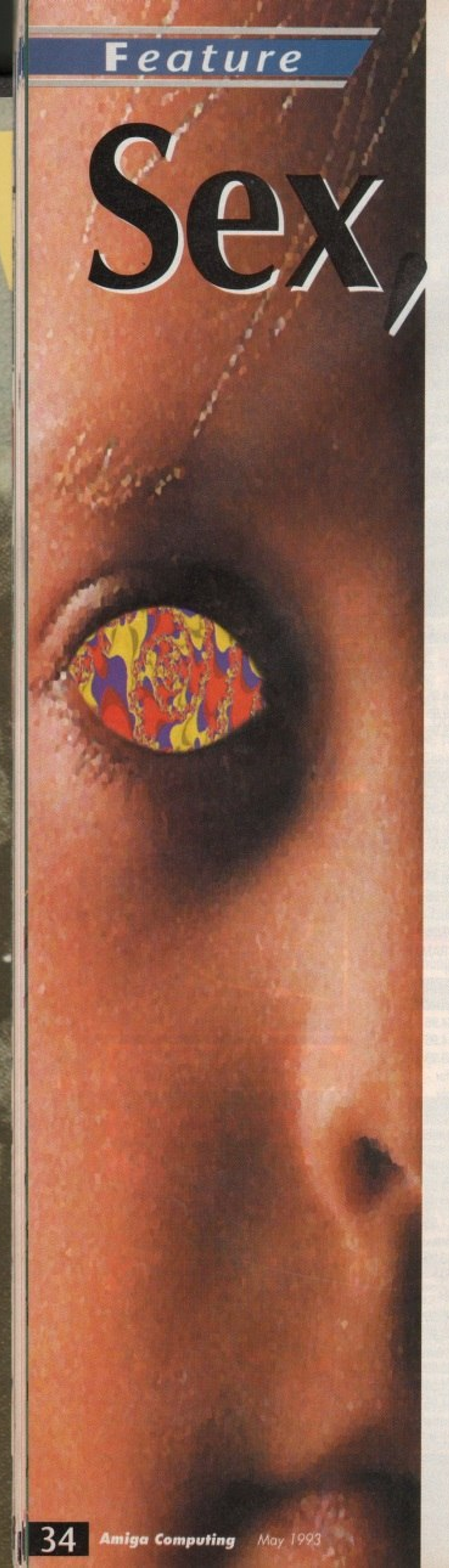


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Sex, lies and

As tabloid hysteria threatens to turn the video games industry into a parental bogeyman, Stevie Kennedy goes behind the hype in search of the truth about our childrens' fastest growing pastime

It is one of those ironies of life that, after years of printing articles on the possible social effects of games software, the computer press should see the embryonic spark of mainstream interest in the subject turn into a bush fire of hypocritical hysteria and tabloid hyperbole.

Though offset by some well balanced television coverage, the main impact of press interest has come through the tabloids, an impact which has seen distortion of the truth and the instant creation of myth and superstition.

So fast has the video game's image been transformed from one of a harmless form of entertainment into one of a social plague that parents and those who make their living from the industry have been left confused and bewildered.

Now, with the danger of every sort of regulation from certification to censorship looming on the horizon, there has never been a better time to examine the issues involved and attempt to discern whatever grains of truth there may be in the mountain of media mendacity.

Time-consuming

Computer games have been a growing part of our leisure culture for almost 15 years and, from the appearance of the first Space Invaders machines in high street arcades to the latest Amiga or Sega chart topper, they have gradually become one of the most popular and time-consuming childrens' hobbies of all. Children, however, aren't the only section of society to have embraced computer game technology.

Since the advancement of graphics, sound, and affordable processing power made semi-realistic simulations possible, organisations across the globe have used computers to train everyone from bus drivers to airline pilots using what are really just highly developed versions of the flight sims and other games we find on our home micros.

"Games" of this kind, though hardly comparable to those which are presently causing concern, save millions of pounds in training costs every year.

In many other ways, we have become a computer and games-oriented society. School children learn otherwise boring subjects using a growing array of computer programs and associated tools, town planning students play games of Sim City, and even the police now benefit from CD-ROM technology to train officers in riot and crowd control procedures.

In addition, role-playing and games outside the computer sphere have for long been a valuable tool in areas such as psychoanalysis and personnel training, areas in which no-one would suggest that games were necessarily a bad thing.

Remember the scare in the early 80s over paper and pencil RPGs such as Dungeons and Dragons? Scaremongers then were ready to print articles which virtually labelled D & D players as Devil worshippers, and portrayed the RPG craze as a sinister underworld of fan-

What the law says

Though many would have us believe that computer games are entirely outside the law, they are in fact governed by several Acts of Parliament, most notable among which are the Video Recordings Act, the Telecommunications Act (both 1984) and the Obscene Publications Act of 1986.

Between them, these statutes cover just about every aspect of the leisure software field, including games, PD and shareware, and bulletin boards.

However, this does not mean that loopholes don't exist. Under the terms of the Video Recordings Act, all video games are exempt from classification (the system of tagging them as PG, 15, 18 and so on) unless they contain acts of gross sex or violence such as the mutilation of humans or animals, rape, and other offensive material found in the sort of video nasties the Act was introduced to legislate against.

This content is way beyond that of any legitimate commercial computer game ever released, and so classification has never occurred except in circumstances where the publishers voluntarily waived their exemption as a marketing ploy.

Games released a few years ago based on Jack the Ripper and other gory characters are to this day the only 18 certificate computer titles in Britain.

A worrying point to note concerning these games, however, is that though given 18 certificates at the time they would look positively tame compared to some of today's chart toppers. Does this mean we might soon see a rash of adult-only computer games? I asked James

video games



This sort of imagery is becoming increasingly common in games, and is fuelling the debate on classification

tasy, yet the games have since become just another hobby.

The point is that leisure and leisure activities have been and will continue to form a greater and greater part of our daily lives, and this is a development which cuts right across the grain of the Protestant work ethic most of us in this country have had instilled in us from an early age.

Deep suspicion

The result is that any activity which seems not to have a productive or beneficial aim is regarded with deep suspicion by the establishment and a large section of the general public.

Sports pass the test, as do gardening and any handicraft taken up by those with time on their hands, but computer games, which neither serve to keep one physically fit nor result in a measurable product, are the antithesis of the long cherished view that the Devil finds work for idle hands. A certain amount of antagonism toward video games has therefore always existed.

Over the past five years, this situation has changed somewhat due to the phenomenal sales of computers such as the Amiga, and latterly the runaway success of Sega and Nintendo in captivating younger games players.

Computers and computer games have become a consumer commodity rather than a minority technically-oriented hobby, and as such have seen their way into millions more homes to the extent that the latest census showed that a home without a computer of some sort was the exception rather than the rule.

For many beleaguered parents, the presence of a device which would keep little Johnny happily blasting away at a TV screen in the safety (and relative silence) of his own bedroom rather than getting up to God knows ➤

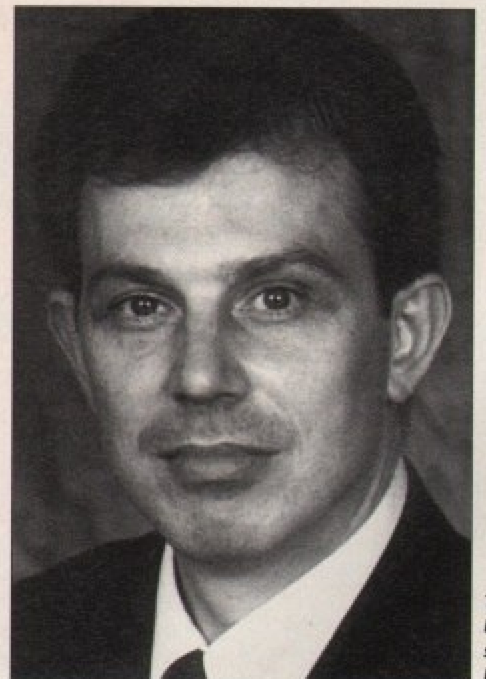
Ferman, Director of the British Board of Film Classification, whether computer games were in danger of being classified on a regular basis.

"No," he told me, "these games are exempt by law and it's not our job to say which games should lose exemption. Only in cases where a court had ruled that a game was no longer exempt or if the software company volunteered the game for classification would we be involved."

Does this mean that games are safe for a while? "That depends. The big problem will come with CD-ROM and we get real-life figures on screen shooting and killing each other. We've spoken to Philips and the Laserdisc Association and when that happens the games will have to be classified."

As 3,300 videos per year already pass through the increasingly busy hands of the BBFC, it seems that classification of a game which, in many cases, would have to be treated as a different game for every computer it appeared on, could quickly become an exercise in bureaucracy.

Video Recordings Act 1984
CHAPTER 39
ARRANGEMENT OF SECTIONS



Tony Blair: happy to see legislation

what down the local arcade or shopping precinct was a blessing rather than a curse, but it now appears that the sheer success of the console games boom is likely to see the industry hoisted by its own petard.

Increasingly, sophisticated and successful hard selling advertisements coupled with the growing popularity of the games have dragged Sonic and company into the limelight where all the snipers can readily draw a bead.

Media interest started last year with the first national press coverage of the dangers of pornographic software, an issue which you might remember covered by *Amiga Computing* a year earlier, and continued with the hype over the release of Sonic the Hedgehog 2. What really started the ball rolling, however, and gave us our first taste of tabloid coverage, was the epilepsy scare.

Premature link

Taking the singular tragedy of a young boy who had died as a result of having a fit while playing a console game, and the understandable concern such an incident provokes, Fleet Street decided that, despite the evidence, computer games were killers.

It subsequently became clear that games cannot cause epilepsy, though when played on TVs they can in rare circumstances bring on a fit in existing epilepsy sufferers. This effect, however, is identical to that of glittering sunlight, ordinary TV, disco lights, and quickly passing road markings, and is in no way exclusive to computers.

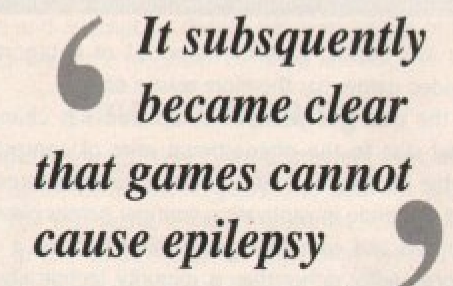
The quite unnecessary sense of danger which initial reports must have caused parents to feel should have been a warning to anyone who wished to draw a premature link between video games and other social ills, but on February 16 this year a breathlessly tasteless and insensitive article by *The Star* left open the blatant inference that games are "creating violent kids" and that there was a link between violent games and child rapists.

Interwoven between two short reports on children who had committed sexual offences and overshadowed by photographs from the story of murdered Bootle toddler Jamie Bulger, *The Star*'s Michael Hellicar covered a story first broken by a World In Action documentary the previous evening.

This programme carried out a very limited pilot research of its own into the possible links between violent games and aggression in children and concluded that there was enough cause for concern to make further research necessary.

Only 148 children were involved in the pilot tests and the program's makers made no attempt to offer their findings as conclusive proof of anything, but this was enough for *The Star* to make the link and to print the story alongside two disturbing reports about juvenile sexual offences which had no connection to computers whatsoever.

The implication was obviously that video games were in some way to blame, a suggestion which prompted the European Leisure Software Publishers' Association (ELSPA)



'It subsequently became clear that games cannot cause epilepsy'

to register a complaint with the Press Complaints Commission.

When consulted by *Amiga Computing* the psychologist quoted by the article, Professor Cary Cooper, confirmed that the test results – which seemed to show that a higher proportion of the children who regularly played video games were aggressive – were conclusive only of the need for further research into an area which has so far remained unexplored.

When asked about the possible interpretations, Dr Cooper said: "This could just show that the kids who are aggressive in the first place are more likely to play violent games rather than that the games made them aggressive."

World in Action's documentary set the tabloids off

Such ambiguity in combination with press inaccuracies carries the danger that the industry will retreat into the laager, thus inviting the legislators to force a more flexible response. I asked ELPSA's Roger Bennett what the games industry intended to do about the scare.

"We treat this matter very seriously and are taking steps towards voluntary self-regulation", he told me. These steps include the drafting of a code of practice for all ELSPA members (the organisation does not represent every games company) similar to that used by the Video Standards Council, and the distribution to schools, retailers and the press of a Video Games Users' Charter setting out sensible steps to avoid eye damage, over-playing of games, and so on.

"We are totally opposed to compulsory bans and censorship. Commercial publishers must be aware of the standards of decency or such legislation will be forced on them.

"We must be seen



From harmless Bart Simpson...



...to a game recommended to 16s and over, but not classified



The government sees no need for further legislation... yet

➤

to be putting our house in order and the Home Office tell me they would welcome our code of practice." said Roger. Putting one's house in order, however, is an activity in which some areas of the industry seem very reluctant to indulge.

Despite the fact that press and police interest in pornographic software either sold by PD libraries or distributed on bulletin boards intensified throughout 1992, the industry failed to act until the first convictions were won by Manchester's Obscene Publications Squad.

Since then, bulletin boards and PD libraries up and down the country have become remarkably "clean", and the ready availability of everything from soft porn to bestiality and worse has become a thing of the past.

Self regulation

The problem was, of course, restricted in the first place to PD libraries and some bulletin boards, but the hurried burst of self regulation we've seen since last summer serves to highlight how well a voluntary code would work if only those who paid it lip service were endowed with a sufficiently urgent sense of the danger of outside interference.

Interest on the part of the tabloids may, ironically, turn out to be for the good if by putting the fear of God (and Parliament) into the games industry it forces the focus away from pure profit long enough for concerted action to take place.

A code of practice would be a first step, but the code presently being formulated by ELSPA is based directly on that used by the video industry, an industry more tightly governed by laws and not cushioned by exemption from classification.

For the games companies to be able to show a clean pair of hands to the legislators they must set out a code to regulate the content of new games so that the Charter ELSPA claims to be working on for the benefit of parent can make solid promises about what little Johnny will be filling his spare time with.

If the most important people in all this, the parents who spend their hard-earned cash to assuage the materialistic little beasts who are today's children, find their fears are not calmed by industry action, they may well turn to their MPs instead.

Its image tarnished by scandals, beset by those who think new laws are the answer to every problem, and sitting on what is a real problem despite the hype, the video games industry must show that it can take a positive, collective, and responsible attitude to its products, an attitude which goes beyond the normal profit motive.

After all, can soul searching really be such a painful exercise if, as most would claim, the industry has nothing to feel guilty about?

Possibly the greatest threat, in terms of its ability to bring about government action, comes from the concern being demonstrated by teachers. This group of professionals work closely with children day after day and, subsequently, their views normally carry weight in Westminster.

More specifically, the 40,000 strong Professional Association of Teachers, which worked with Granada Television in the making of the original World in Action documentary, has nailed its colours to the mast and demanded that a series of radical steps be taken.

Worryingly for the software industry, PAT has a reputation as a vociferous and effective lobbying organisation, so would they be happy with ELSPA's proposed moves?

PAT's original statement called for four initiatives, demanding that the government carry out research into the effects of video games on children, set up an independent body to monitor the content of the games, "curb and monitor" advertising, and mount a publicity campaign to warn parents of the dangers.

Now, some might think it strange that, although the first demand accepts that a lack of research makes conclusions difficult, the following three call for strict and definite action.

Surely the "curbing" or otherwise of advertising is already a matter for the Advertising Standards Authority? And isn't the BBFC in a position to monitor game content? Publicity campaigns to supply the public with relevant information are a good thing, but to attempt to "make parents aware of the potential danger" as PAT puts it, is to put forward a point of view rather than open up the debate.

However, as PAT's Deputy General Secretary Jackie Miller told me: "As a professional body with a responsibility for children, we have a duty to act, even if there is a danger that the press will sensationalise the issue."

When asked if she thought computer games were the only culprits, she said: "This is not the only cause for concern. There are many desensitising influences on children and a great deal of advertising pressure on them and their parents".

So isn't there a danger that video games are being made into a fall guy by media coverage?

"How the media covers such an important area shouldn't have a bearing on how we look at the problem and I've been surprised when talking to teachers and parents all over the country that no-one denies there is a problem."

What, then, is PAT's solution to the problem?

"We see classification as the answer. You can't expect people to be their own watchdogs. We will be pressing for action at the highest level in the Home Office, and now that we've decided to act we intend to carry on until we see a result."

Pornography

Since *Amiga Computing* last covered the subject of pornographic software, a combination of press interest and police action have served to clean up what was threatening to become a blot on the whole industry.

This time last year, hard core pornography was readily available from a number of PD libraries, and disks containing the most explicit digitised snuff video animations anyone in this office had ever seen were on sale to adults and children alike.

However, despite the vagueness of the obscenity laws and the difficulty often encountered by the police of convincing a jury that material is obscene, arrests were made, stocks confiscated, and convictions obtained.

The result is that a problem, the seriousness of which most industry figures had failed to appreciate, was nipped in the bud and the porn merchants either forced out of the computer business or underground.

If, using existing laws and a responsible response from the industry, such a positive result can be reached, there is no reason to believe that the same cannot be achieved today.

AC

What the politicians say

"Video games are already covered by the law and we don't see the need at this point for further legislation. We are, however, willing to review the situation if necessary."

Home Office spokesman

"We would be happy to see the formation of a watchdog body and would welcome further research."

Tony Blair, Shadow Home Secretary

Uniquely active

The one attribute of video games which sets them aside from other media is interactivity, and it is this which will undoubtedly feature highly in any future research into their effects.

Criticisms concerning the content of games are, in the main, equally or more applicable to films and television, but in this one respect electronic entertainment is unique.

Active involvement in a beat-'em-up is a very different experience to the passive viewing of a TV screen and much more likely to have a number of psychological effects.

Psychologist Valerie Kent from Goldsmith College in London, an expert on child behaviour, told me that although no research into this specific area exists at the moment, active involvement in a pursuit is more likely to reinforce behaviour and pass on to the child any assumptions and attitudes which underlie the game.

Thus it becomes more likely that children may see violence as a legitimate means to an end or that, for instance, the child becomes more desensitised to violence, even if not made more aggressive. In a very real sense, that which makes a computer game so much fun and so addictive as a pastime can also be said to make it more of a potential danger.

Scanning the market

David Dibnah examines what's on offer to help you import pictures into your Amiga

Over the last few years Amigas have been used increasingly in DTP work, resulting in more and more calls from users for equipment to import pictures and artwork into their machines. Only a couple of years ago it was nearly impossible to get hold of any kind of Amiga scanner without having to fork out serious amounts of money.

But now quite a few companies are offering this equipment at a wide range of costs and performance levels. You can pick up a scanner for less than £100 from most good computer shops or many of the mail order firms.

Scanners can be used to import text and graphics into most art, word-processor and DTP packages. Once you have scanned an image you can load it into your favourite art package and make any required alterations. Some scanners come with software built-in to facilitate this.

The problem now is which model to pick. Here I'll be trying out some of the most popular models, from hand-held black and white models right up to Epson's colour flatbed equipment.

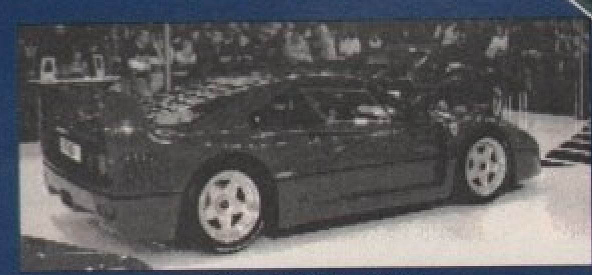


Power 64 greyscale scanner

The greyscale unit comes with the same software as the colour version, so you still get the editing features the colour version offers. The scanner itself can handle images at 400dpi up to 64 greyscales. It works with any Amiga, plugging into the parallel port.

Even though the device is capable of scanning in 64 greyscales, these can only be displayed on the new AGA chipset machines as older ones can only display 16 true greyscales. The software detects which machine it is running on and makes the necessary adjustments.

The images produced were quite good and the software runs much faster than the colour version. Used with DTP packages and a black and white printer this unit is a reasonable choice at £115 with the same software as the colour version.



Greyscale scans can still be of very high quality

PowerScan Colour

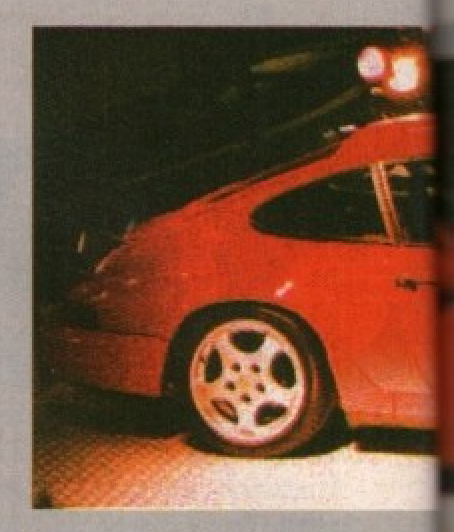


This hand scanner can be used on all machines in the Amiga range except the A600 and the A1200. It is capable of 200dpi resolution in 4,096 colours in 12-bit colour. With it comes quite comprehensive software giving total control over the manipulation of images.

When you remove the Power Colour scanner from the box the first thing you notice is how well made it feels, an impression backed up by the excellent software and manual.

We reviewed the A500 model which plugs into a small interface which goes into the expansion port on the left side of the computer. Different interfaces are supplied by Power for the same price.

Scanning an image is quite easy although it can be quite slow on the A500, and the software keeps you informed at all times as to what is happening. The first operation is to set how



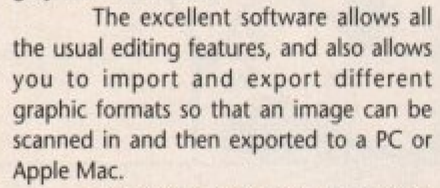
large a scan is required is by typing in the figures in millimetres.

The software then indicates exactly how much memory is required and if

AlfaScan Plus

Gasteiner's offering is capable of scanning at 400dpi and up to 256 greyscales which makes for much more detailed and clearer images. AlphaScan plugs into the parallel port so it can be used on any Amiga. It also has a parallel pass-through enabling both scanner and printer to be used at the same time.

Because older Amigas can only display 16 greyscales, the AlphaScan Plus uses dithering to produce the effect of more colours on screen than there really are. However, an AGA chipset machine will display the full 256 greyscales with ease.

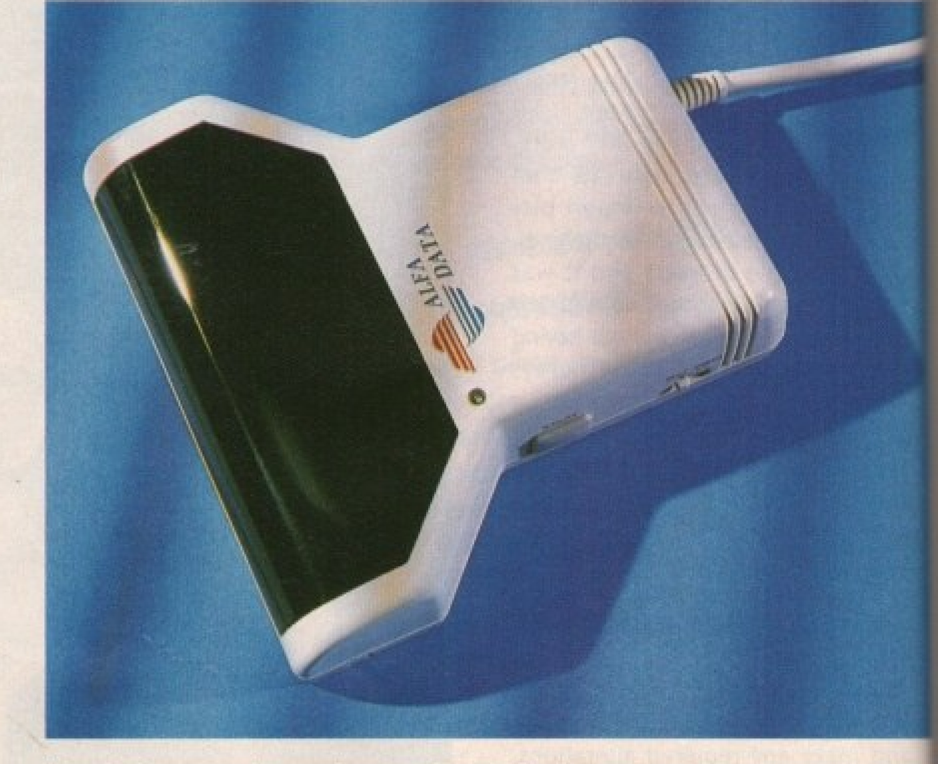


The excellent software allows all the usual editing features, and also allows you to import and export different graphic formats so that an image can be scanned in and then exported to a PC or Apple Mac.

One thing that really impressed me was the accompanying Merge-It software which facilitates scanning an A4 or larger piece of paper in two sections and then splicing them together. This is exceedingly hard to do if you don't have the proper software.

The greyscale images produced are some of the best I have seen out of a budget priced model. Coupled with good software and a well built unit this has to be one of the best quality greyscale packages around.

AlphaScan prices start from £99

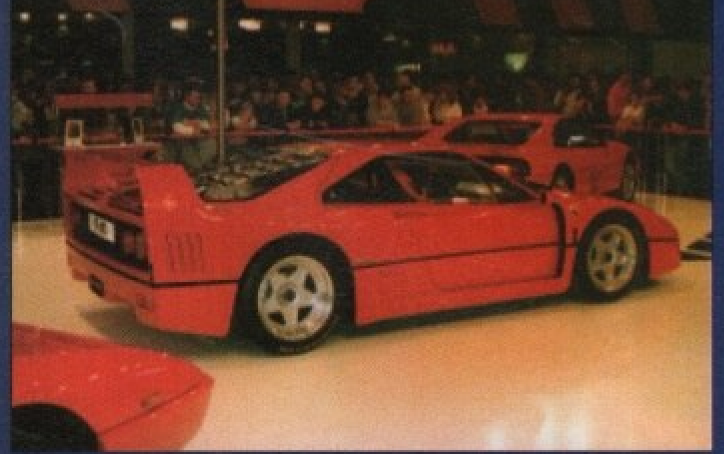


for unit plus scan and save software to £119.95 for the scanner and Touchup and Merge-It software – the package used to produce the images illustrating this article.

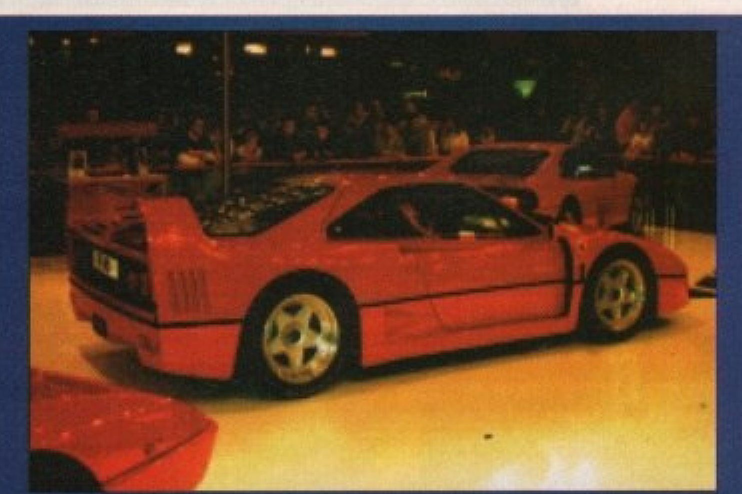
Optical Character Recognition software available for this scanner can recognise text, so a page of text can be converted to Ascii format and loaded into any wordprocessor.

This scanner performed well and produced some really good results, although the software tended to crash when we tried to touch up pictures scanned on a 1Mb machine.

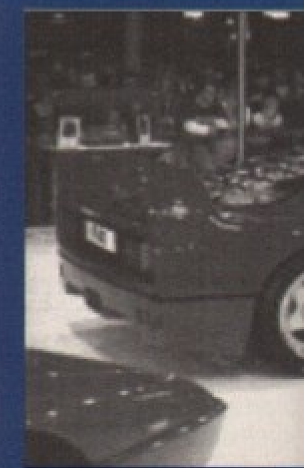
OUTPUT



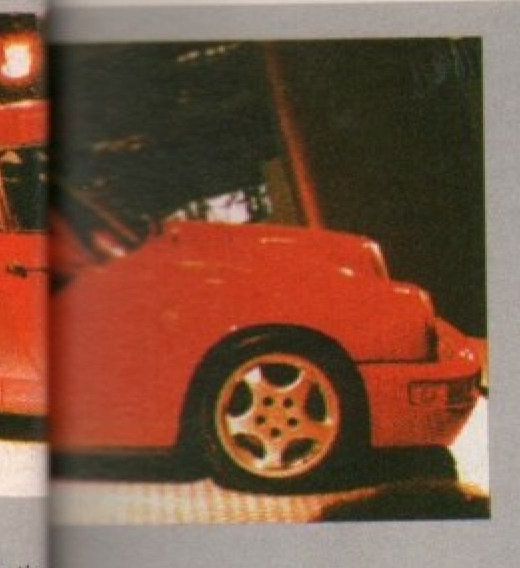
Epson GT6500



Sharp JX100



AlfaScan Plus



enough is available. The scan size set, just click on scan and away you go. A red light on the unit helps you keep going across the image at the correct speed, as if you move too fast the light begins to blink.

The scanning speed was not too critical, although this cannot be said about the greyscale version, which calls for much slower operation. The image scanned in, you wait a couple of minutes or so while the Amiga renders the image into HAM and displays it on screen.

That done, you can make any changes to the image you want. The software allows you to scale, crop, flip and adjust the palette of your image via easy-to-use pull-down menus. This can call for large amounts of memory – we worked on an A500 Plus with 2Mb chip and 2Mb fast RAM and still had some memory problems.

£239 gets you probably the best budget colour scanner currently available with friendly software and a well built scanner unit.

"To scan a full-colour A4 image at 200 percent zoom you would need well over 500Mb of RAM!"



Sharp JX100



Sharp's 200dpi 18-bit model differs from most as it looks like a square box with no buttons, rollers or anything else apart from a cable leading from it.

In operation you place the picture to be scanned on a flat surface and position the JX over it, looking through a glass panel to position it correctly.

The scanner has to make three passes over the picture to produce the final colour picture, although you can make a greyscale preview – displayed in the top left-hand corner of the screen – in order to make any necessary adjustments.

This is the only scanner apart from the Epson GT to give such a preview option, and it certainly comes in handy as you can waste quite a lot of time scanning things in only to find out you have missed out part of the image.

Images can be rendered in any resolution required and the usual rotate, flip and other features are available.

The JX100 gives really good images, far better than any hand scanner, but there again is nearly twice the price. If you want professional results the JX100 is certainly worth serious consideration.

One other extremely good point about the JX100 is the fact that there are no external moving parts like rollers or flaps, which means it is quite robust.

The machine and software cost £399 from Silica Systems.

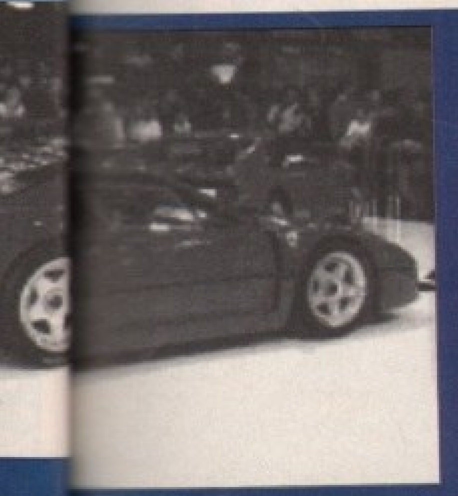
Supplier information

Power Computing (0234 843388)
PowerScan Mono £115
PowerScan Colour £239
Epson GT-6500 £799 (inc. software)

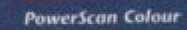
Gasteiner (081-365 1151)
AlfaScan Plus £119.95

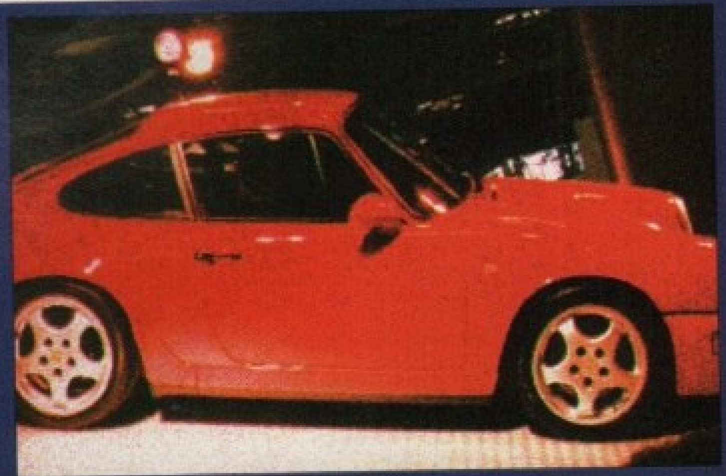
Silica Systems (081-309 1111)
Sharp JX-100 £399

HB Marketing (0753 686000)
Epson GT-6500 £799
ADPro driver £110,
Transparency Unit £545






PowerScan Colour



PowerScan Colour

Epson GT 6500



This flatbed scanner is capable of operating at an impressive 600dpi with full 24-bit colour capability (16.7 million colours). It is operated much like a photocopier, as you have to lift up the flap on the top of the machine to place your picture on the scanner glass.

Owning a GT6500 will prove expensive. We are talking mega bucks here, and not only because of the unit's price, for you will also need a driver and lots and lots of memory for your Amiga.

We used the GT on an A4000 with a total of 6Mb of RAM and still managed to run out of memory just dealing with the F40 in the example picture. If you tried scanning a full colour A4 image at 600dpi with 200 per cent zoom you would need well over 500Mb of RAM! The F40 was scanned at 320 dpi and still managed to gobble up 7.5Mb of memory.

Only two software packages are available. One is the Epson driver, a standalone program. The other is a loader specifically designed to be used from within ADPro 2 from ASDG. This add-on allows much better control. You can also take advantage of the many features ADPro has to offer.

The cost of all this truly professional equipment, with scanner, software and extra memory thrown in is well over the £1,000 mark. The GT also has a big brother, the GT8000, which can scan at up to 800dpi.

The major advantage the Epson GT range enjoys over all other scanners is its ability – through a hardware add-on – to scan transparencies. To add this feature will set you back £565 on top of the cost of the scanner which is £799.

Software to use the GT from ADPro costs £110, while the Epson software costs £129. We used the ADPro software for this review and found it easy to use and giving excellent results.

So if you want the best, and have a bank balance to match, contact HB Marketing.



Epson's transparency scanner in action

Hints and tips

Whenever scanning pictures or text, try to make sure that the paper you are scanning from is as flat and crease-free as possible. If the picture is on is not flat then when you try to scan the image you will see small lines where the light from the scanner is deflected incorrectly.

Also when using hand scanners try not to let the scanner suddenly jerk, as again you will see little lines appear running across your final image.

If you try scanning a small photographic picture the scanner can catch on the edges of the picture so it's worth using tape to stick the picture to the surface of you desk or table.

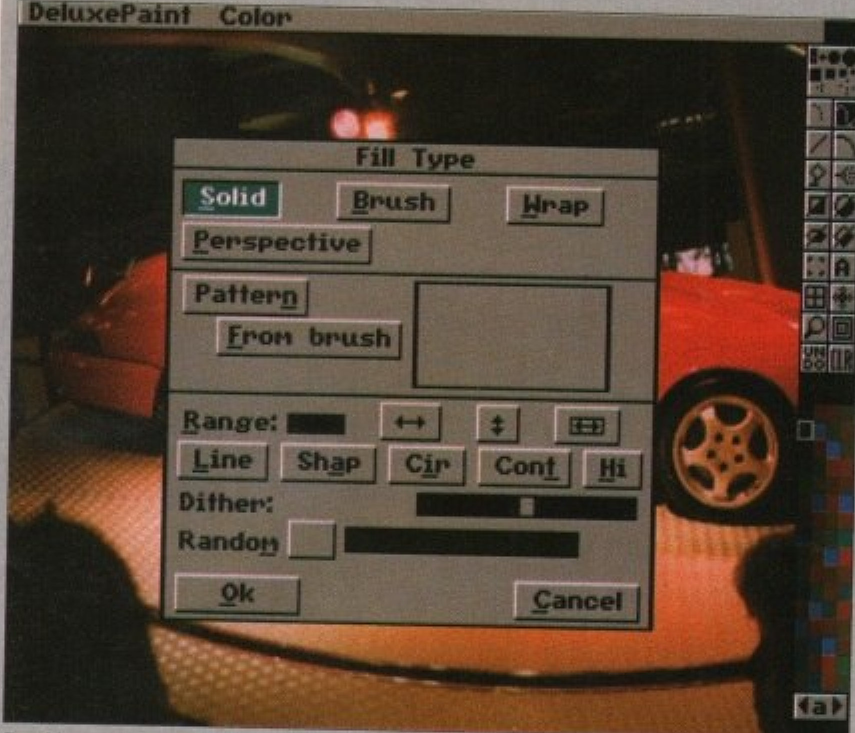
If you want to scan say an A4 piece of paper and your scanner is only half the width of the paper, you can scan one half of the paper first and save it then scan the second half, but scan slightly over the half you have already scanned and then save the scan again. You can then load the two images into an art package like DPaint and splice both the halves together again. If you want to scan someone's face from a picture but you don't have a lot of memory available then try to only scan the minimum amount of the picture you require, as this can save a considerable amount of memory.

No matter what kind of scanner you use make sure the scanning head or glass is always kept clean as even the smallest speak of dirt can show up when scanning at high resolutions.

If you do have to clean the scanning surface then use a soft cloth with no cleaning agents, as these can damage your scanning head beyond repair quite easily.

Always experiment with the software you get with your scanner as making small adjustments to settings can make a big difference in the quality of your final images.

It's also a good idea to see if the software included with the scanner can save out in any other format other than IFF, as then you can export files to other machines.



Touching up in DPaint is often more effective than relying on the scanners software

System requirements

Scanning can be done on virtually any Amiga from 1Mb upwards and doesn't really require anything other than an Amiga and a scanner with software. Although it must be said that using a 1Mb Amiga will be quite restricting.

If you intend on scanning full-colour images then you would really need to add a few megabytes of memory as colour scans can take up quite a lot of RAM. Most scanners will work quite happily in both Chip and Fast RAM.

When using some colour scanners a faster processor will come in handy but is not essential. Also some scans when saved can be well over 1Mb in size so a hard drive would be a good advantage.

It's a good idea to have some kind of graphics workstation program as well, such as ADPro from ASDG because this then gives you even greater control over your images. You can also then port graphics from one machine to another like a PC or Apple Macintosh.



ADPro is the ultimate processing tool

The verdict

If I had to pick the scanner I was most impressed with then it would obviously be the Epson, but not everybody can afford that kind of money (me included). The Power unit is probably the best colour scanner for the home user to consider as it's fairly cheap and gives good results without too much effort.

In the greyscale department the AlphaScan 256 gave good results and the software was well laid out and easy to use .

The JX100 was also good if you want it for semi serious use, but I consider it possibly a bit too highly priced for most home users.



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Paul Overaa discusses the value of using sub-routines to build complete programs

Most programs are more easily written if the various tasks that they have to perform can be broken down and coded as separate, smaller, code blocks.

The simplest way of creating an isolated code section in Basic is to define a subroutine. This is a piece of code that starts with a label and finishes with a Return statement, and the easiest way to explain the ideas is to take an example.

Suppose you were writing a stopwatch program that was to count a user-specified number of seconds and display a second hand moving around a clockface making a "beep" noise every time it moved.

We could define a variable called seconds to hold the number of elapsed seconds, one called position to hold the position of the second hand, another called g_count to hold the number of seconds to be counted, and one called g_exit_flag used to indicate when the program should terminate. With every elapsed second the program would want to do these things...

- Undraw the current second hand position
- Make a beep sound
- Calculate the new position of the second hand
- If time is complete then set an exit flag variable
- Draw the new second hand position

These tasks, all related to the updating of a second hand, are a typical example of where a subroutine might be written and in this case some of the above jobs are quite easy to code.

To start with Hisoft Basic contains a Sound statement and a beep noise can be made just by using the command.

```
SOUND 880,2
```

Similarly, updating the seconds variable would just mean adding one to it like this.

```
seconds=seconds+1
```

How do we relate the number of elapsed seconds to the position of the second hand? If time intervals equal to, or longer than, one minute are going to be allowed then it is necessary to remember that after 60 seconds have elapsed the position of the second hand will be the same as the starting point (12 o'clock).

Basic's Mod function can be used to get the position of the second hand after any number of seconds.

```
position=seconds MOD 60
```

Now, if the above ideas are collected together this "near Basic" subroutine framework appears.

```
UpdateHand:
Undraw the current second hand position
SOUND 880,2
seconds=seconds+1
position=seconds MOD 60
if seconds=g_count THEN g_exit_flag=TRUE
Draw the new second hand position
RETURN
```

Simple Basic subroutines, such as the one we are currently designing, can be executed by using a Gosub statement but for our present purposes we'll use a conditional form that forces the subroutine to be executed at one second intervals, namely

```
ON TIMER(1) GOSUB UpdateHand
```

Sub-programs

Hisoft Basic also provides a new style of subroutine, called a sub-program, that allows parameters (arguments) to be passed to a routine.

Hisoft Basic variable parameters are, by default, passed by reference, but by placing Var in front of any variable name the calling mechanism changes and the sub-program works with a true copy of the parameter and the original variable cannot be changed from within the sub-program.

Let's suppose our stopwatch program will use a circular clockface whose centre is the point (X_ORIGIN, Y_ORIGIN) and whose outer second hand position at any given time is given by the co-ordinate (x,y). With Basic we can draw the second hand using this sort of statement...

```
LINE (X_ORIGIN, Y_ORIGIN) - (X_ORIGIN+x,
Y_ORIGIN+y)
```

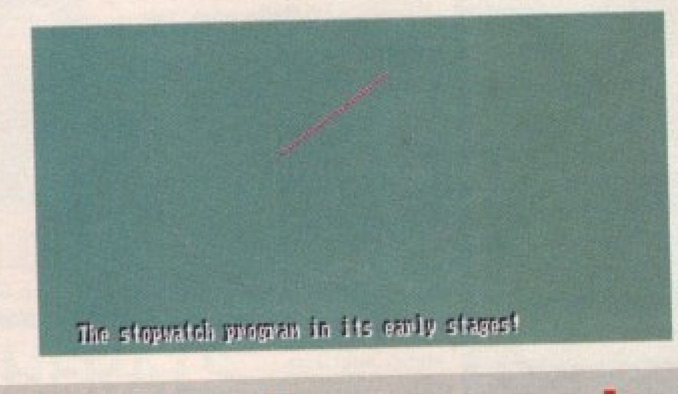
This display hand task is a good candidate for writing as a sub-program. In fact things actually work out quite well because by choosing a complement drawing mode we can both draw and undraw the second hand using the same routine. This makes it easy to write a DisplayHand sub-program which can then be used to complete the UpdateHand code outlined earlier.

```
REM
UpdateHand:
CALL DisplayHand(X_ORIGIN, Y_ORIGIN,
x(position), y(position))
          SOUND 880,2
          seconds=seconds+1
          position=seconds MOD 60
          if seconds=g_count THEN
g_exit_flag=TRUE
          CALL DisplayHand( X_ORIGIN,
Y_ORIGIN, x(position), y(position))
RETURN
REM
SUB DisplayHand(VAL X_ORIGIN, VAL Y_ORIGIN,
VAL x, VAL y)
LINE (X_ORIGIN, Y_ORIGIN) - X_ORIGIN+x,
Y_ORIGIN+y)
END SUB
REM
```

I've put a completed example program on this month's CoverDisk so that you can see the above subroutine and sub-program in action.

By the way – don't worry too much if some of the areas seem confusing. Next month I'll fill in the remaining details with some discussions on loops and array variables!

AC



See how little progeamming is required for some visual return

Keep up with the commands

Command: COLOR
Syntax: COLOR [foreground_colour] [, background_colour[[, draw_mode]
Purpose: Sets colour and drawing mode characteristics. Two useful modes are 0 (the JAM1 mode where foreground pen is used), and 2 (the draw once to write and again to remove Complement mode).

Command: LINE
Syntax: LINE (x, y1) - (x2, y2)
Purpose: Allows a line to be drawn between two points whose co-ordinates are (x1,y1) and (x2,y2).

Command: MOD
Syntax: <number or number variable> MOD <base>
Purpose: Returns the remainder left after a number has been divided by some base value as many times as is possible.

Command: ON GOSUB
Syntax: ON <X> GOSUB Eroutine1> [, <routine2,>,... <routineN,>]
Purpose: With this statement <X> may be either an integer variable name, or a Menu, Error, Mouse, Break, Collision or Timer keyword. When a keyword is used control passes to the specified routine at the appropriate time (eg if an error is detected or if the user selects a menu item). Timer events use a slightly different syntax in that the time between events can be specified - see this month's code for an example.

When a variable name is used Basic calls the X'th value in a list and so the statement:

```
ON X GOSUB SUB1, SUB2, SUB3, SUB4
```

would, if X had a value of 2 in the above example, result in subroutine SUB2 being called

Sub-programs

In their simplest form sub-program definitions look like this...

```
SUB name (comma delimited parameter list)
```

Variable declarations

<real sub-program code>

END SUB
Variables within a sub-program may be declared as being one of three types:

SHARED – this allows a sub-program to access a value from the main program without having it passed as a parameter.

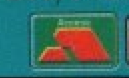
STATIC – used to introduce local variables that are initialised when the program starts running, but which are not re-initialised between successive sub-program calls.

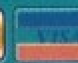
LOCAL – local variables which are initialised to zero each time the sub-program is executed.

Sub-program variable parameters can, and in most cases should, be passed by value to protect the original variable from being inadvertently altered.

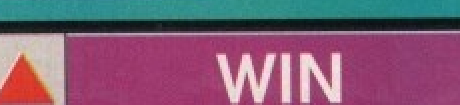
This can be done using the VAL keyword as illustrated in this month's example program.

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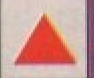
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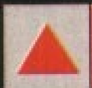
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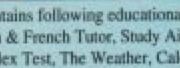
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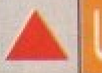
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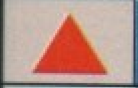
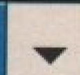
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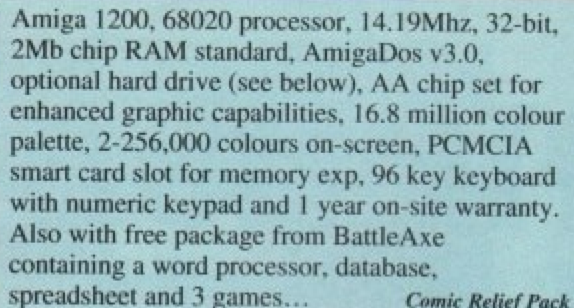
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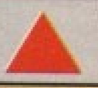
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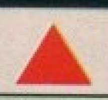
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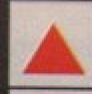


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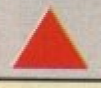
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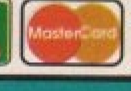
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Dimensional doodles

3D or not 3D? That is the question. Paul Austin takes a close look at the Amiga's ultimate modelling utility, Pixel 3D Professional

As the title suggests, this program is firmly aimed at the pro user/enthusiast who requires broadcast-quality results and isn't put off by the prospect of having to invest heavily in the software and power hardware to attain it.

As you've probably spotted from the examples, Pixel Pro isn't simply an extrusion tool – although admittedly this is a large part of the package. In addition to this particular function, format conversion is where the program really starts to earn its keep.

Before the inevitable stroll through the software, a brief pause on the program's conversion options is a must. In total the package will handle 14 different 3D model formats.

The beauty of this multi-format design is that as well as loading, the package will also save in any one of the 14 formats. This means that a mountain of objects are ready and waiting to be either downloaded or bought from the huge pool already out there.

Thanks to some smart programming the software will auto-sense the format of the file to be loaded – in this particular article the majority of the models are former Sculpt creations mixed in with the occasional example from Lightwave.

Original colours

Courtesy of the program's Config options it's possible to retain not only the structure of the original but also its colour information – of course this has to be part of the model structure rather than a brush map.

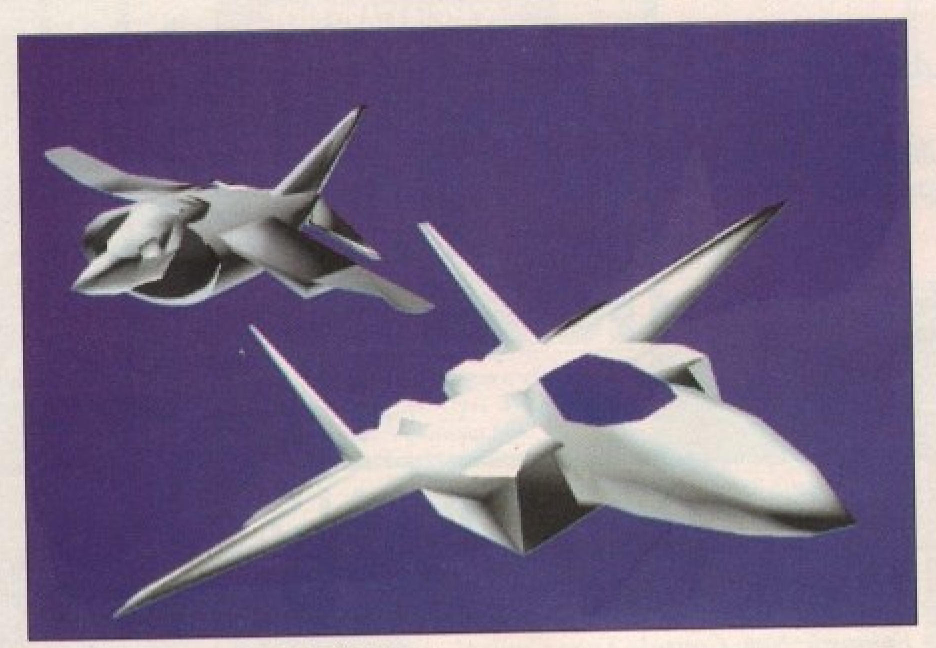
A good example is the RoboCop II model which clearly shows the original colours defined within sculpt.

Although extremely smart when it comes to loading models it must be said that glitches can occur when saving out into another format. In this particular example all the images used in the piece have been re-rendered in Imagine.

In the case of Imagine the success rate for objects was around 65 to 70 per cent. Although this doesn't sound too good it must be stressed that the program never fails to convert the object.

However it does make mistakes which results in holes where they shouldn't be and more often solid areas where holes are meant to occur...

As a result the job of conversion is often only half-way done when the process is complete as editing is necessary to clean up the object in the ray tracer or modeller of your choice.



Two sculpt creations in full flight within Imagine

However even with this additional editing, Pixel Pro is the only effective, if rather hit-and-miss, method of converting between formats.

In order to simplify the process of producing models, several filtering options allow you to reduce the number of polygons and faces used to create the model.

This can occur prior to saving via the polygon reduction option or alternatively as the object is saved – thankfully this is optional. Although polygon reduction has its uses it also has its risks – usually in the form of missing polygons on the saved model which may need to be replaced.

OK I think that covers the loading, saving and conversion of models, now it's time to look at the generation of originals from bitmapped beginnings.

Importation can take several forms, the most basic being a mono import which loads any bitmap ignoring its colour information. As a result Pixel Pro will simply show the outline of the 2D graphic as if created as a simple black and white image.

The next and most often used variant is to import the bitmap complete with its colour information. The only restriction on importation is that they are neither 24-bit or HAM images.

Once loaded in you can simply extrude the object to a desired depth or specify that the colours be extruded according to their relative brightness. This relative brightness option is worked out from the brightest colour in the range. If for example you specify a figure of 100 units, that will become the measure of the brightest colour which all the others are judge against.

If however you require more accuracy than a relative extrusion can provide the package also offers the option to specify each colour in the bitmap individually – a rather painstaking process, but if you need real accuracy it's just about worth the effort.

The final choice is to use the grid feature which operates in a similar manner to the colour option, but rather than you setting the scale the software does the job for you by analysing the incoming image as it is loaded and then automatically extruding it for you.

This "sit back and let the software do the work" approach can be taken to the ultimate with the assistance of the program's excellent config option which allows you to specify all the techniques you wish to apply to a bitmap prior to its importation.

For example, the extrusion depth can be set, the level of smoothing, the bevel to be applied and whether or not the object is to be spun in the process.

Specifying effects

Although it's easy to apply all of the above after the image is brought in, I often found that specifying the effects in the config prior to the great event often produced better results than applying exactly the same effects latter on.

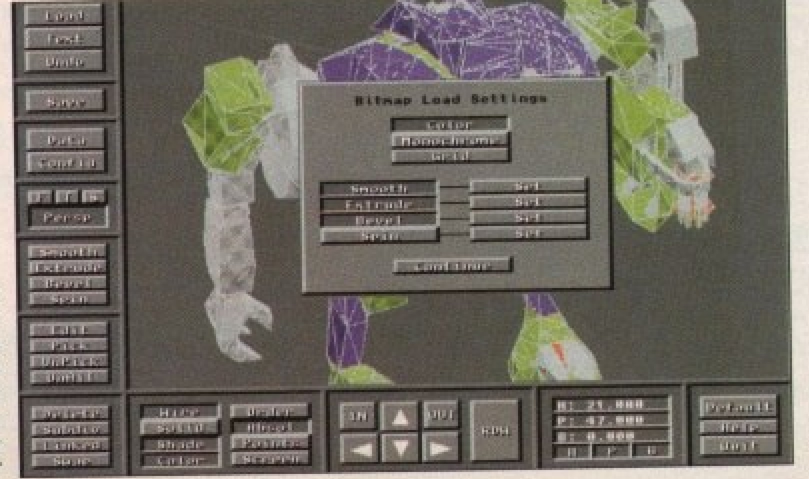
For example if you try to smooth the edges of a resident model after it has been extruded the end result is invariably disastrous. As a result, smoothing is always best applied on the flat import prior to any other effect being applied.

Although a methodical approach will mean generally equal results, it's often all too easy to get three or four steps down the line and then make the fatal mistake.

It's true that the package does offer a very effective undo, but nevertheless errors can creep in and then it's back to square one.

However, with the config approach you can apply all your guesswork in one go and see the results instantly. If things aren't perfect a slight tinker with the config presets and you can reload the bitmap for another attempt.

In the above passage a few new elements have sneaked in to the equation such as bevel, smooth and spin. Take a



Pixel Pro's excellent loading presets all configured via a single requester



Pixel Pro's bitmapped extrusion in action as a standard font becomes transformed into a smooth 3D model

look at the box out for a further explanation of Pixel Pro's additional power features.

As you may have spotted, the software not only offers a perspective mode but also full 2D viewing from either the front, side or top of the object.

2D viewing

This option only really comes into its own when point-editing imported bitmaps prior to extrusion. A series of options allow all the usual cutting, insertion and movement of points on a singular or group basis allowing even smoother end results when finally extruded and like all the program's environment controls the mouse is all you'll need.

To help visualise the object, a whole series of preview modes await including, solid, shaded, wireframe and colour each of which can be combined with one or more of the others to provide the best results.

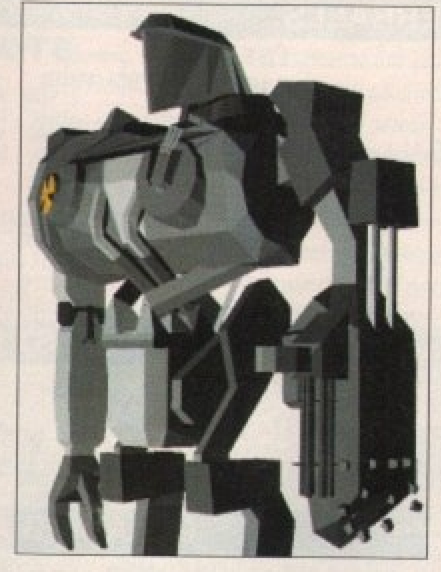
The package also offers extensive mouse or icon-controlled movement and zoom in both 2D and 3D with various icons allowing you to lock axes as required.

Finally, a default button allows you to define and save as many configurations as you require ready to be imported for similar tasks in future, while the final icon supplies basic on-line help when required.

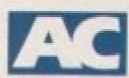
After my first few adventures into the package I was slowly becoming convinced that it hated me and to be honest the feeling was mutual. However like Imagine, Pixel Pro suffers a classic case of crap manual syndrome.

Behind the facade of badly explained techno-jargon and a total omission of tutorial lurks a package that gets better and better the more you experiment.

If you're serious and don't mind taking time to experiment, Pixel 3D Professional is the only viable answer to several thorny 3D problems. If you're working commercially with the Amiga it's the kind of package you shouldn't be without even though it can be unbelievably slow, eats RAM like mad and needs at least an 020 to operate effectively...



A famous metallic face from RoboCop II courtesy of format conversions



Those 3D effects in full

Smoothing

Once a bitmap is loaded, the jaggies inherent are all to apparent, and as a result, smoothing is often essential. This is particularly the case with when using the program's option to import text direct from a standard Amiga font.

Even when you take the advice of the manual and import text at 100 points plus, the jaggies are often still too much to bear. As a consequence, smoothing is the only option and if applied carefully, the improvement can be dramatic.

Like all the effect requesters, the smoothing option is fit to burst with special user definable options guaranteed to keep the average anorak happy for months while the basic controls are often more than enough to get the job done.

These consist of preset small, medium and large degrees of effect which can be adjusted for better accuracy by percentage and then applied to the object either as a whole or alternatively to just to a selected part of the object.

Extruding

Unlike smoothing, extrusion is pretty basic with just three simple options including regular, colour and list. The first allows a default extrusion to a set depth for the entire object while the second follows the relative depth-to-colour ratio mentioned earlier.

Finally comes the rather curiously titled List option which conceals another element mentioned above, namely the option to set the extrusion depth for each colour individually.

In addition to the big three, X/Y offsets allow you to extrude at a specified angle while yet another option allows you to specify the colour for the front, back and sides faces of the object when stretched into 3D.

And just like its predecessor, options await to apply the effect to the entire image or simply a part.

Bevel

Of all the available effects, bevel has to be the most impressive, as it allows you to soften the edge of an extruded object either by a specified degree or alternative by using what the software calls a router bit to add a predefined curve to the front and/or rear of the object.

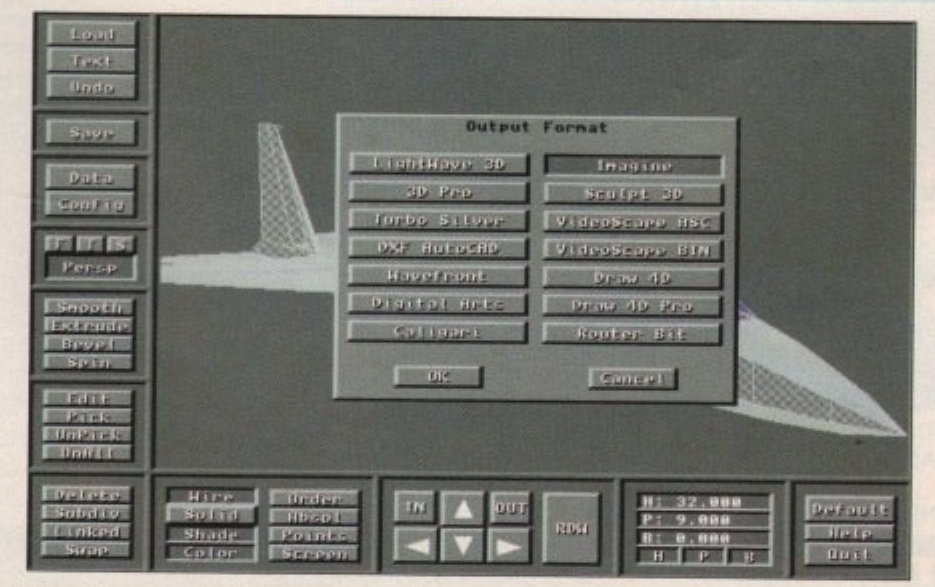
The aforementioned router bit, although sounding complex, is really just a basic curve simulating a cross-section of the edge to be created. These routers can be generated and saved to disk as required.

If a router bit isn't required, a regular bevel can be employed to produce a softened edge. Although much more basic it can nevertheless be very effective taking the form of a straight chamfer of the leading and trailing edge of the object. As usual both router and regular bevels can be applied either to a part or the whole image.

Spin

Due to the rather self explanatory title I doubt this option needs much introduction but although it sounds simple in fact Spin holds a few surprises by offering the kind of extrusion options only usually available within packages which employ spline paths as a modelling tool.

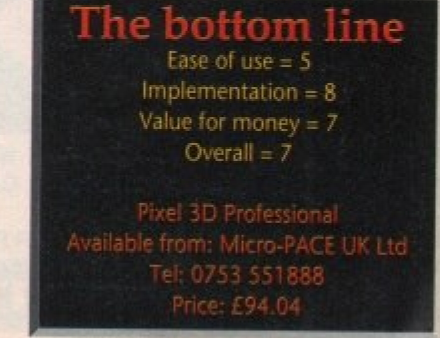
As you'd expect, the requester boasts variable degree settings, offsets, destination lengths and colour options in a similar vein to the extrusion requester, and yes you've guessed it, the effect can be applied to just part or the whole.



Convert from any of the 14 formats with ease









Ezra Surf's Postbag

Got something to say through the pages of AC? Ezra Surf is our mailman, dedicated to sitting in a corner reading your letters and selecting the most interesting for publication.
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Please don't enclose saes as Ezra just hasn't got enough paper to reply personally. He might also have to shorten your letters, so don't be offended if you end up getting the chop.

Crack it!

You tell us quite regularly that piracy is harming the Amiga, and in the past have covered the problem quiet extensively. Why then do you actively promote piracy by allowing pirates (thieves) to advertise for free in your magazine?

These adverts are blatant in stating that they wish to swap "cracked" software. I wrote off to a couple of the people who wanted contacts and on both occasions I was asked to send my list of latest "stuff" to them so that they could see if there was anything I wanted off them.

If I had supplied enough blank disks I could have had hundreds of pounds worth of software! What I want to know is, are you going to stop these advertisements or are you going to allow these thieves to pass on their stolen data?

A concerned Amiga user

Our Classified advertisements, to which you refer, are vetted every month and any illegal advertisements are removed. We also remove commercial ads posing as free reader ads and any which might cause offence. The problem is in deciding which are illegal and which are genuine pleas for contacts from lonely users.

Amiga Market Classifieds were introduced as a reader service from which we make only enough money to cover our costs, and to withdraw the service or severely hamper it because of a few potentially bad apples would be to allow pirates to attack every reader who sends us an ad.

Having said this, your concerns are perfectly valid, and we will be happy to check up on any dodgy entries you come across.

Remember that we have the names and addresses of all who send advertisements to us, so if a reader is offered pirated software, they should try to get it in writing – perhaps in the form of a list – and we can then pass this on to FAST for immediate prosecution. Piracy – together we'll crack it (geddit?).

Network Amiga

With the Amiga being as flexible, powerful, and easy to use as it is, I am encouraging my son's junior school to invest in a network of these machines to replace aged BBCs. Please may I use your pages to contact any schools already benefiting from using the Amiga? I would also like to see some advice about networking Amigas in your pages, and also more information about loading floppy programs onto a hard disk. Thanks for a great magazine.

Martin Wyatt, Ashford

If there are any educational networkers out there or just any teachers who'd like to pass on their Amiga experiences, here is Martin's address:

Old Stores, Hothfield Common
Ashford TN26 1HB

Networking the Amiga is not as simple a job as it would be if you were using, say, a PC or a Mac. There are few Amiga networking systems around at the moment, but you could try talking to Graham Heggie at Hydra Systems (0203 471111), suppliers of the only UK Amiga networking system I know of.

Word swap

I purchased my first Amiga a couple of months ago for purely leisure use. Since then I have become impressed with the speed with which my A1200 handles graphics compared to the computers I use at work (PCs by any chance? – Ed) and I would like to use my Amiga for serious uses.

In particular I would like to work on scientific documents at home that I have been writing using Word 5 on Apple Macs.

Could you please tell me if there is a document processor for the Amiga which can import such documents or, failing that, if there is a Mac emulator available.

If compatible document formats do not exist across different formats, I think it would be a good idea since it would make life a lot easier and remove the need for having various computers each with expensive monitors and hard drives.

R J Levett, Cambridge

The international document format you refer to exists to a certain extent in the shape of Ascii text. To get this sort of text out of Word 5, just use Save As and choose the Text Only format.

Ascii is fine for unformatted documents but as it doesn't carry any format information regarding bold text, underline, and so on, it is less than ideal if you wish to transfer a more or less finished document.

Luckily, Wordworth v2 for the Amiga will load a wide variety of documents, including Microsoft Word (though only the MS-DOS version) and Rich Text Format (RTF), which Word 5 refers to as Interchange Format.

Using the latter, it is possible to transfer a document from Word 5 to Wordworth v2 while retaining all character formatting commands.

To do so, users of the A1200 will have to take advantage of the CrossDos utility built into Workbench 3.0. Use this to format a PC disk for the Mac to read or to read PC disks formatted on the Mac, as this is the only way short of buying the commercial Mac-2-Dos package to make an Amiga and Mac speak to each other.

Card carrier

Star letter ESP Star letter

I bought my A1200 back in November and apart from the usual teething troubles when some games software failed to work I am very pleased with my machine. It is a definitely a step up from my old A500, which is becoming dated.

With the increasing popularity of the A600 and the growing market for peripherals I thought it was a necessity to move onto newer and better things.

I could not have made a better move. All my important business packages such as Wordworth, DPaint IV, and Amos still work, and they work much better.

By this I mean I don't spend my time waiting for programs to take ages on basic functions and I can continue to wordprocess without being interrupted. My art work is faster and I can't wait to get my hands on the new DPaint IV AGA.

In a recent letters page you said you wanted to see some support for an additional pass-through slot on the A670 for further expansion. I would like to give my support for such a slot. A German PCMCIA card expansion is already available for the PC machines, but it does have a huge price tag. I already have a 2Mb RAM card in my PCMCIA slot and if I plug in a CD-ROM drive I will most probably lose the use of the 2Mb. Please Commodore, will you bring out an A670 with a PCMCIA pass-through slot?

Chris Handley, Truro

Your letter must surely represent the tip of the iceberg as far as PCMCIA worries go. How many A600 and A1200 users out there are worried about the possibility that their RAM expansions will be redundant when other Commodore devices are released?

Such doubts can only damage sales of PCMCIA cards as users hold off from investing £100 or more in a slot which might become redundant or which might be incapable of accessing more than one card or device. Commodore have failed so far to make much of PCMCIA other than hot air, so let's hope they can improve somewhat on their track record.

At the moment they're not saying much about the A670, never mind releasing tech specs, so we'll just have to wait and see – as usual.

Wish list

I have a mixed bag for you, but first something for the powers that be at Commodore. Who in this day and age in their right mind releases a computer

➤



without a hard drive option? I'm talking about the A1200 of course.

It's a joke! Surely it's not difficult to source the hard drives, and though you might want to keep costs down on a machine like this, don't you realise that people want a hard drive and will pay for one? Why doesn't *AC* print a questionnaire for Amiga fans to fill in giving their views on the specs for a decent Amiga?

The Amiga is an established computer that can only get better, but when are Commodore going to become customer-friendly by accepting some feedback from users? Like, for instance, I would like a through-port on my A670 when it appears.

Now it's *AC*'s turn. I think you turn out a good varied interest magazine, but how about in the comms column a couple of months devoted to things like robotic control, reading sensors, communication by short wave radio, receiving weather satellite signals and so on? There are other things to communicate with other than BBSs, you know!

Ian Stewart, Switzerland

If Commodore are reading this page, I hope they realise just how barking mad their omission of an A1200HD was from the launch last year and how baffled the buying public are by the decision.

As for a questionnaire, we receive enough feedback from readers not to have to ask them precise questions about their favourite Amiga. However, if you'd all like to send your wish lists to me, I'd be glad to keep track of the ESP perfect machine.

We haven't printed any hardware projects for a while because we've found that they are fairly unpopular, but if a hidden cadre of the soldering iron brigade makes itself known among our readership we may bring them back. This, I might add, is highly unlikely, but it's a possibility.

Kickstart cure

Could you please tell me if there is a program that will make the old A500 games work on the A500 Plus and A600? I have already got the Degrader program but that just takes the memory down to 512k. Is there a program that will change the Kickstart to 1.3 from 2.04?

I read in your issue 58 news section that there was such a program. Could you tell me where to get hold of it?

Ross Warnett, Hornchurch

The program to which you are referring is ReloKick 1.3, a PD software ROM switcher which has been touted in some quarters as the be-all and end-all of A1200 compatibility problems. However, the method has a few drawbacks.

First of all, A1200 compatibility problems are more often than not caused by the 68020 or the AGA chip set rather than the Kickstart chip, particularly where games are concerned, and the options available through the boot menu are the best cure for these problems.

Secondly, ReloKick, like all software Kickstart switchers, requires that the user already has a copy of the Kickstart ROM on disk. This software is Commodore's copyright and has only ever been released on disk to developers and the original A1000 owners.

Some companies are distributing this and other Kickstart switchers with all new A1200s, and rumours are that some are actually supplying the Kickstart ROM on disk as well.

If Commodore know about this and are turning a blind eye, they haven't told us, so my advice to any user in doubt would be to enquire about the legal position before accepting what might be illicit software.

Hard cash

I'm writing in response to the article in your March issue where the A1200 is compared to IBM-PC clones. The article made interesting reading, especially your views about Amigas not having a hard drive as standard.

The question I would ask is why are hard drives for the A500 Plus so expensive? The average price of a 42Mb drive with 2Mb RAM is £350 to £400, yet last year Commodore cut the price of the A600 by £100, which priced them at £399 with 40Mb hard drive.

Now they've brought out the A1200 which sells for about £550 with 40Mb hard drive. The point I am making is that I would like to buy a hard drive for my A500, but when you consider the price and the advantages of the A1200 it makes you wonder which items are priced correctly.

P Cole, Braintree

Most of the products to which you refer are hampered in any price war by the fact that they are external devices and because the A500 Plus, unlike the A600 and A1200, doesn't have a hard drive interface built in.

The presence of the IDE interface on every A600 and A1200 motherboard means that adding a hard drive is a much less expensive business.

On the A500 series, however, the user must pay for the drive unit, the interface, the external casing, and often a power supply as well. Any price differences between the two upgrade paths are only what one would expect.

Selling the A500 Plus to buy an A1200 with hard drive is a drastic step which will intially prove more expensive, but in the long run you could find that to keep up with Amiga technology you will have to trade up at some point.

More awards

Having just read through the March issue of *Amiga Computing*, I noticed your answer to the request about Award Maker Plus. This program can be obtained from:

Creative Media Store
Salters Lane
Lower Moor
Pershore
WR10 2PE

Or give TriStar Electronics a try for their utilities disk number 73. Their advert is on page 175.

A W Lewsey, Alexandria

Gently does it

Am I the only Amiga owner who doesn't turn into a raving lunatic every time an opinion is expressed on the future of the Amiga or the PC threat?

I read with interest your comments in the Title Fight article about how most of us indulge in "My computer Is better than your computer" arguments, and I agree wholeheartedly.

I regularly go down to a local computer club (no – we don't pirate games) where all sorts of users can be found, some of whom have Amigas, some have PCs, some even have Archimedes.

They are mostly older, mature people, but as soon as someone hints that the Amiga might be better than the PC or the Archimedes, a ridiculous argument breaks out which is made all the worse if it carries on in the pub after our club meet.

Grown men squabbling like children over the relative merits of the Amiga's custom chips or the fabled Falcon's DSP make for a fairly sad backdrop to any evening, especially in a room where the television in the corner is showing pictures of bombed-out Sarajevo, images of profound concern which rank below the difference between SCSI and IDE in importance to these poor people. Can't they just get a life or something?

Chris Roberts, Manchester

Right to reply

On reading the letter entitled "Air crash" in our March issue, Thalion Software's UK representative, Tony King, has exercised his right to reply with the following:

I was very concerned to hear of a customer who had returned his product to Thalion Germany and who had not yet received a reply. While you were quite correct in printing the UK contact number and my name, I felt the tone of your reply left something to be desired. Thalion, being a German company, operates a quite adequate customer services department based in Germany.

It should be remembered that Airbus A320 is essentially an imported product and has been on release for over a year. With a new agreement in place, all future releases of Airbus will have UK registration cards and points of contact.

Finally, remember the following important fact. As of February 1, 1993, A320 Airbus on all formats across Europe had sold in excess of 147,000 units, and while I am not offering excuses for what happened to Mr Cooper or Mr Rose, that is an awful lot of registration cards.

There are updates and mailshots in preparation, including new products and so on, and as these become available, customers who have returned their registration cards will be informed.

Tony King, Thalion

On a final note, Ezra Surf would like to apologise to Thalion for the unnecessarily sarcastic tone of the reply to the letter in our March issue.

I'd also like to point out that this shows how concern from customers, if voiced rather than bottled up, can prompt the responsible software companies to act.



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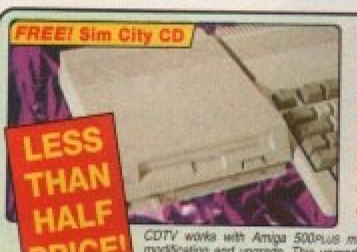
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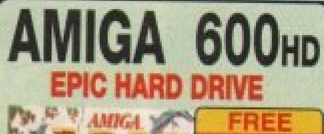
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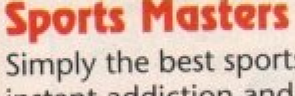


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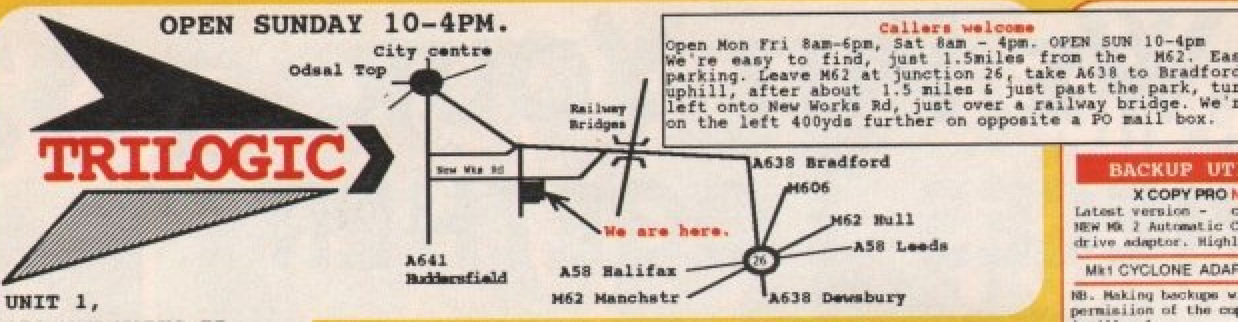
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A proper eyeful

Stevie Kennedy inspects Retina, a budget display card offering high res 24-bit graphics and flicker fixing for only £350, and asks "where's the catch?"

With the advent of the AGA chip set, most of us wondered what would become of the Amiga's third-party 24-bit market. The high resolution and 262,000 colours of Ham8 seemed good enough for many of the static images previously only possible using full-blown 24-bit cards ranging in price from £600 to over £2,000. Why then should the Amiga enthusiast or low end video producer spend more than the £399 price of an A1200?

Only budget 24-bit boards can hope to continue to appeal to the mass market, but the quandary here is that most of these boards are so stripped down as to be useless for video work, leaving them as high quality but decidedly non-standard display devices. Peripherals of this kind will still appeal to those who want or need a 24-bit display for artwork only, but most users will take one look at the problems of software supply and give such devices a body swerve.

Any new 24-bit board therefore has a hurdle to climb. For it to be viable, it must offer either professional capabilities or enough low cost power and compatibility to entice users into buying it in preference to the AGA upgrade path. Retina, from VLab manufacturers MacroSystem, takes the latter approach to bring Amiga users a true 24-bit board from as little as £350.

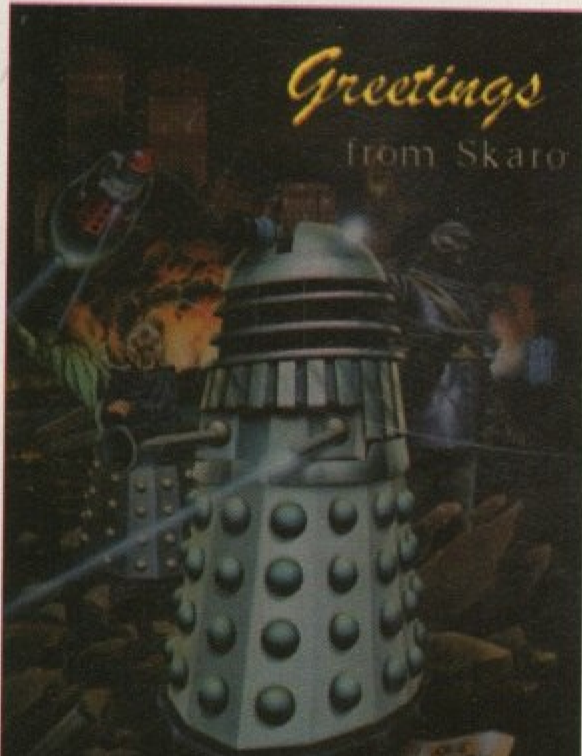
Flicker fixer

Remarkably, and without stretching reality too far, the board can also claim to be a flicker fixer and graphics accelerator into the bargain. This is in no small way due to some very clever programming and a suite of Workbench utilities supplied with the hardware.

The Retina fits internally in any A2000, 3000, or 4000 Zorro slot and is a fairly basic looking piece of kit, comprising of a couple of custom chips and a bank of VRAM in the shape of 70ns ZIP chips. For output it depends solely on a VGA-style 15-pin D-plug of the type used by innumerable monitors, but which offers only RGB signals. For use with most video equipment, the board's output will therefore have to be passed through an encoder costing a further £150 or so.

Restrictions in this area are the most common problem with cheaper boards, and Retina is no exception. Serious video enthusiasts would therefore be advised either to look elsewhere or include the costs of a PAL or Y/C encoder in their calculations, especially as Retina has no on-board genlock or framegrabber.

Coming from the same stable as VLab, Retina supports grabbing from within the bundled paint package, VDPaint 2.6, but the internal version of VLab costs not far short of £300. In combination, the two would make a formidable video graphics tool, though total cost of the system would soar towards the £800 mark for a fully configured set-up.



Retina can anti-alias text for seamless intergration in graphics

So where does Retina find its low cost market? Unlike most 24-bit cards, Retina attempts to act as a general purpose display enhancer rather than a dedicated framebuffer. To this end, several utility programs supplied with the board provide, among other things, Workbench emulation. By running the RetinaEmu program, either from Workbench or during start-up through the WBStartup drawer, users can have the card intercept all standard Workbench display functions so that Workbench and most programs which work with the system will display on Retina's screen. When this happens, the user is effectively using Retina as a flicker fixer.

A second program, RetinaScreenMode, ➤

Hitting the target

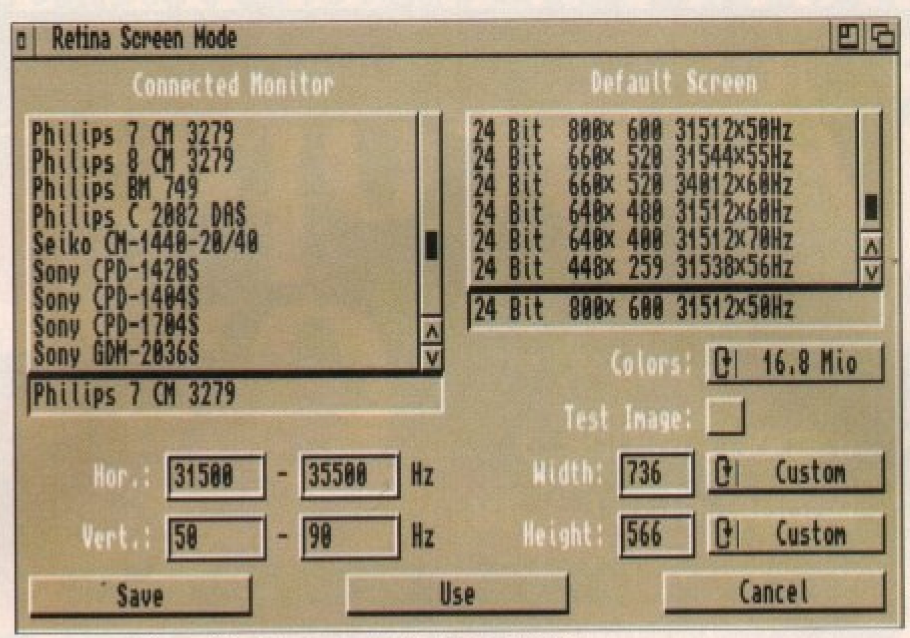
Retina is the first budget board to make use of a technique known as retargetable graphics, a buzzword which will eventually see a revolution in Amiga displays. Put simply, it means that instead of having to go straight to the Amiga's graphics chips, any display device will be able to use a go-between in the shape of a software library.

Software which has been well designed will automatically look for such display libraries, and the screen display from, say, a DTP package, will automatically be retargeted at whatever board is plugged into that particular machine. Suppliers of new devices such as Retina will therefore have only to write a library for their card for the Amiga and any OS-legal software to use it as the standard display. Retargetable graphics are due to be incorporated into Kickstart 4.0 and should encourage more manufacturers to make their own display cards.

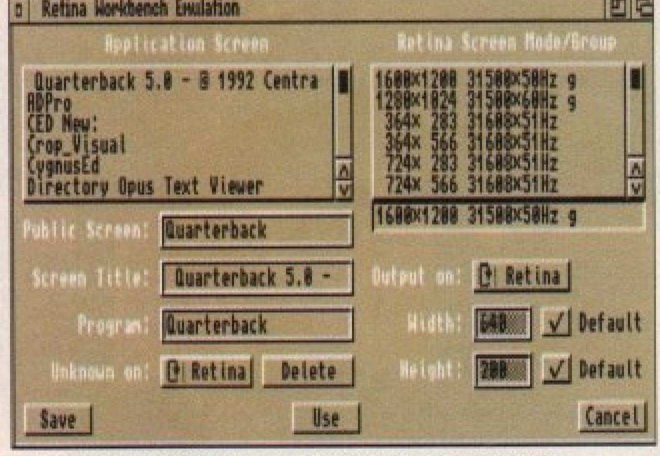
offers the user a choice of dozens of popular VGA and multisync monitors including most of the NEC, Sony, and Philips ranges and, if a specific monitor is not listed, to add his or her own model's specifications to the list. Once this important job is complete, running the RetinaEmu program will send the correct signal for the monitor attached to the card's VGA port.

If the user has only one monitor it is an easy job to save the RetinaEmu settings then just pop the program in WBStartup for the machine to use the card's display on boot up thereafter. The advantage of this mode of operation is that the user has a rock solid flicker fixed display for most productivity packages and, in general, any package which multitasks with Workbench. In addition, the card's quick 32-bit VRAM and fast graphics library lends a speed boost to many packages, especially DPaint IV in HAM mode and Workbench in 16 colours, but there is a downside.

Retina can be made to output at 15.5kHz and even has a Commodore 1084 monitor setting, but this sort of output is only possible after Workbench has loaded and the emulation program has kicked in. Until this time, the board has no output, and in any case defaults to a higher frequency VGA output. The result is that if using only one monitor it must be a VGA or better, so that most popular Amiga games which autoboot rather than load from Workbench will not be displayed.



Preferences software offers just about any display mode you like



Workbench emulation allows a wide variety of software to run

By far the best Retina setup is a dual monitor situation where the Amiga screen is displayed on the user's standard Amiga monitor – 1084 or 1960 – and the Retina display sent to anything from a cheap VGA to a 21in multisync depending on your budget. In this situation it is possible to retain compatibility with all existing software while displaying 24-bit images in the best possible resolution.

The two disk supplied with the card include, as well as the RetinaEmu and screen mode programs, a display utility, loaders and savers for ADPro, and VDPaint 2.6, the latest version of a package which first appeared on the VD2000 graphics card. Additionally, there is a Harlequin library to enable the board to roughly emulate the much more expensive Harlequin card, and an ARexx script for Black Belt's ImageMr package to enable this powerful image manipulation program to use a 24-bit Retina screen.

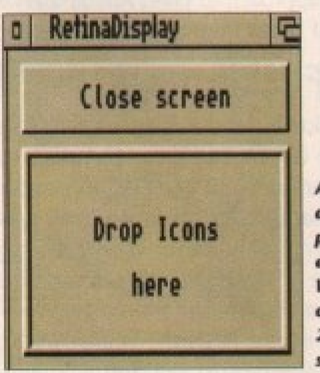
ADPro has become such a de facto standard for Amiga graphics processing that it would have been surprising had MacroSystem failed to supply a saver, but this does not detract from the fact that they have and that it does the job. Once installed, the ADPro user can select the saver from the usual list within the program and any image saved is then rerouted to the 24-bit display.

Display control

A choice of raw image or rendered data is available, along with 8-bit grey, but there is none of the sophisticated control over the display as that offered by, for example, the Harlequin saver. Users cannot choose screen offsets or whether to centre an image in the screen, thus robbing the saver of much of its usefulness. Of all the software supplied with Retina, this is the routine I would most urge the programmers to reconsider.

A particular headache with the ADPro saver is that because it flips display to the Retina buffer, it isn't possible to flick back to ADPro using a mouse click. One must instead use the left-Amiga-N route, and this is a real pain when viewing a large number of images.

The ImageMr ARexx script is much



An Applcon display program enables Workbench-controlled 24-bit screens

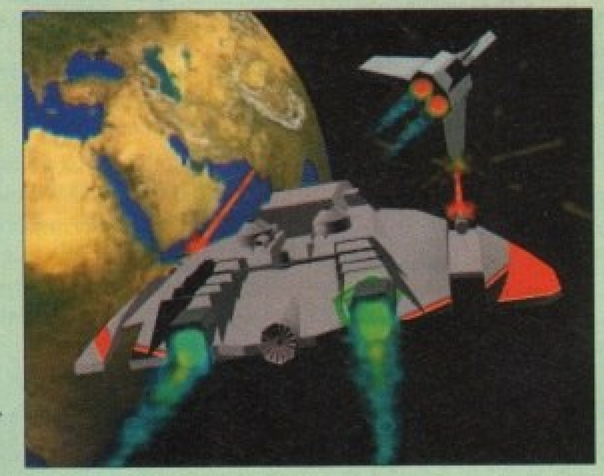
Bundled paint package is a bonus

Retina's bundled 24-bit paint package, VDPaint 2.6, is an evolution of a program which first appeared on the VD2000 display card a few years ago, and were it not for the appearance of DCTV and IV24 its mere presence as a freebie would have been good enough. However, the sheer quality of DCTV's bundled paint program and the relatively poor MacroPaint on the IV24 have set out a standard (one high, the other low) by which we may judge.

Though not a competitor for the still unequalled TVPaint, VDPaint stands up well as a paint package in its own right, and does most of what is required of it. Images in either 24-bit IFF (ILBM or DEEP), or any of the AGA picture formats can be loaded, and the package will save images in JPEG to save on hard drive space. This can be a life-saver for the user with a passion for 24-bit but a hard drive with limited capacity.

Other formats supported include VDPaint's own format, PPM, and separated RGB files. A nice touch is the minipic appended to all files saved from the paint package. This is similar to the previews offered by OpalPaint in that it appears in the load requester window whenever the user re-loads a VDPaint file and is very handy when scanning a drawer full of files for a particular image.

In action, all painting features are accessed from a single floating toolbox which can be easily popped up on screen with a click of the right mouse button but whose design is simple and comprehensive enough to take the user into a productive groove after the first few hours of use.


Minor touch-ups to rendered images are possible

One sensible feature is the way the program controls painting effects. Rather than utilise local control of effects like gradient fill and forcing the user to select them when a tool is chosen for use, VDPaint provides a global setting. A bank of icons at the bottom of the toolbox offer a variety of paint application techniques including gradients, rub-through, smoke, and smear, but these once selected stay on and work with all tools until another effect is chosen.

It is most often the case that when painting, the user is continually switching from solid paint application to perhaps an airbrush, then text, back to painting, but this time with the smoke effect, then maybe a bit of smearing. When a single click at the beginning of the process can turn on an effect for all future operations, increased usability is the result.

The tools themselves work very well, and on the most part with a fair degree of speed, despite the fact that this is a bundled freebie. Speed degradation occurs under certain circumstances, especially when brushes are used as fills or when large gradient fills are used, but otherwise everything zips along nicely on accelerated Amigas.

On 68000 equipped machines, speed of operation can become painfully slow, but at least the package makes a good attempt



Genlock problems

Retina's only output is a 15-pin VGA port, which means it is virtually impossible to "lock" the board's output for use with a genlock. Normal Amiga display modes output from the built in 23-pin port on every Amiga use the Amiga's unique video-friendly signal to make genlocking both easy and cheap.

The reason for this is the sync pulse generated by Amigas to which any genlock can synchronise itself to produce rock steady images on tape. Without such a solid reference signal, mixing two video signals from different sources is impossible, and it is this sort of output which makes the more expensive cards such as Harlequin by far the better buy for the video professional or enthusiast.

Other popular cards, such as OpalVision, either have genlocks which are designed specially to fit to the card, or provide their own sync pulse and a range of video outputs such as Y/C or composite. In this respect, Retina is far behind.

more useful, though of course only so long as the user has access to this program. Simply by selecting the ARexx script as the redraw screen script in ImageMr's display preferences, the program's output is redirected to the 24-bit buffer whenever a redraw is ordered. In effect, this means that any of the package's advanced image processing tools can be applied to a graphic and the true results seen immediately rather than as a rough HAM preview.

Probably the only drawback for ImageMr users is that the program flips back into standard display when any screen interaction is called for, such as when a brush is cut out or an area marked for a specific effect. As the image loaded is more than likely a 24-bit image (why else would one need Retina?) the screen representation of the graphic is, to say the least, difficult to work on. This aside, I would certainly prefer to use ImageMr with Retina than without.

VDPaint is capable of producing excellent presentation graphics

Slideshows

MacroSystem's supplied screen display program, RetinaDisplay, is a fairly basic utility, but it does have the ability to display a number of pictures in sequence with user-definable delay and speed between each for very simple slideshows. Other than this, it is restricted to displaying images on the Retina 24-bit screen, though it makes use of AppIcon techniques to enable the user to simply drag an IFF file's icon into the RetinaDisplay window rather than use CLI.

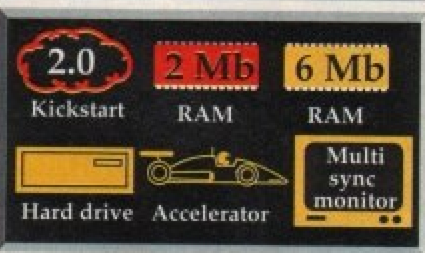
The utility purports to provide double-buffered animation on the Retina by running a series of images from the hard drive then buffering them in RAM for a faster animation the second time round, but every picture I've tried so far has been rejected by the program as unsuitable for buffering. I am therefore unable to judge how well animation would work on this otherwise fast card, though by the nature of large 24-bit files it is unlikely to be anything other than slow, despite any amount of buffering.

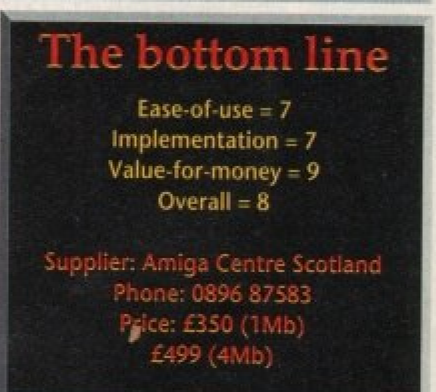
RetinaDisplay's reluctance to buffer a series of images is probably a simple bug – the review card was fully populated to 4Mb VRAM – but given the fact that quarter screen 24-bit files will animate at only about the speed of a slideshow, to hold one's breath in anticipation of smooth full screen 24-bit animation at long last would be to invite suffocation. Retina is fast, but not that fast.

Retina is a splendid 24-bit option for the budding artist who needs 24-bit quality and either isn't interested in multimedia or has access to another machine equipped with a more video-friendly display board.

For the enthusiast looking to move up a notch and who isn't concerned about the restrictions Retina places on the use of standard auto-booting Amiga software, this has to be the cheapest combination of video accelerator (of sorts), 24-bit card, and flicker fixer, but for the video or multimedia user Retina will hold little appeal.







at running on 16-bit platforms. This, as one would expect, is a bit of a problem for a paint program which is operating in 24-bit, so MacroSystem supply both a 68000 and a 680x0 version of VDPaint, the lowlier version optimised to use standard CPU instructions as quickly as possible.

Drawing tools are, as usual, not designed to stun and amaze and wouldn't look out of place in DPaint, but they function as expected and furnish the user with enough power for painting purposes. Painting effects, on the other hand, are about as exotic and varied as in any other package.

The most simple effect is the much vaunted gradient, an effect which, though as common as the flu, is still the most useful for general purpose backgrounds and so on. In keeping with tradition, a simple requester enables the setting of gradients from any corner or side of the screen, and up to four colours (one in each corner) can be used in the blend.

My one grouch concerning these blends was that to set one up required the use of three requesters. First a trip to the colour swatch to choose some colours for the range, then off to the blend requester to choose which of the ten or so blends to use, then finally a visit to the gradient requester to set up which corner or side of the screen the blend was to progress from. After all this, one gradient combination is available for use. Not a particularly smooth operation.

Text handling is much better, and by clicking on the style icon the user can access all Amiga fonts, including Agfa outline fonts such as CGTimes and those supplied in the Agfa starter pack reviewed last month. These are the ideal typefaces for use in 24-bit images as they are almost jaggie-free on screen and require little in the way of anti-aliasing to create a smooth finish. However, even when using bitmap fonts, the style requester's variable anti-aliasing control makes life a lot easier.

Rub-through can be a startlingly effective technique

Other stars in the paint line up include the mask function, rub-through, and VLab support. Masking is one of the most important techniques of image creation on any machine, and as such it must be properly implemented. Luckily, VDPaint has a fulsome mask function which allows masks defined as hue, saturation or value of the selected colour. All of these can be set from zero to 255, making very gradual masks for blending a picture into a background and so on.

Smiling planet

Rub-through, the technique of rubbing away part of one buffer to reveal the picture held in the background buffer is available on Retinas with 2Mb of VRAM or more and, when used in conjunction with masks and the airbrush, makes some very useful effects possible. The smiling planet Earth is a good example of how combining one image and another in this way makes for a completely different effect.

Finally, direct support for the VLab 24-bit video digitiser using an identical monitor window to that used by VLab's own software gives Retina a much needed video link to the outside world. The images captured by VLab are stored directly in the card's VRAM for immediate touch-up or saving to disk, and the benefits of being able to immediately view a captured video frame in full 24-bit cannot be understated.

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AMIGA Update

AGA gathers new disciples

Wordworth 2 becomes the latest major package to find a seat on the AGA bandwagon, Final Copy fixes its font problems, and OpalVision software gets a boost. Read on...

The initial release of Wordworth v2 contained few disappointments for reviewers, but it did have two major weaknesses.

AGA file formats, including Ham8 and 256-colour IFFs, could be loaded for inclusion in documents, but they were not displayed on screen in the glorious colour available through Final Copy II.

This meant that though Wordworth v2 was far and away the more powerful in terms of its wordprocessing features, it had a distinct disadvantage when competing for the A1200/4000 market.

In addition, the package's handling of all graphics was slow and in need of improvement. Digita announced at the time that an upgrade to enable screen display of AGA graphics was on the way, and though a couple of months later than at first promised, it finally arrived this month.

Too many supposedly AGA-friendly programs continue to offer simple choices between high and low resolution or "open on Workbench" variations rather than dealing directly with custom screens in Super hi-res or Productivity modes.

Wordworth v2 at last brings AGA users the choice of any screen mode currently possible through the Workbench preferences settings, which means that those with high quality high resolution monitors can wordprocess in any resolution.

Users choose a screen mode using a simple Wordworth preferences requester. Screen width and height are displayed and there is a slider for the user to specify the number of screen colours, so there can be no complaints about the overall implementation.

Unfortunately, this cannot be said for the use of the graphics themselves. Importing large pictures is still a tortuous exercise resulting in long delays while screen pictures are built up, so there is still an urgent need for Digita's programmers to improve on things as they stand.

Wordworth may now be complete in terms of its AGA compatibility, but it still has a way to go in usability, at least where graphics are concerned.



Magic wand enables marquees to be set and filled of cut out

OpalVision v1.7

Australia's answer to the Video Toaster, promising to bring PAL users the same sort of power features as the NTSC-only NewTek unit, has been available for about eight months and the hardware upgrades we were given a tantalising hint of at the board's launch are still a while away.

However, the bundled software package has improved steadily since it first appeared, and now offers several major improvements over v1.0.

Consisting in the main of MakeAnim24 and PlayAnim24, these utilities offer a rare chance to see real-time 24-bit animation.

The catch, of course, is that playback speeds are less than smooth (frame rates of between 20 fps for 12-bit and 4 fps for full 24-bit are the norm) and high resolution animation is just not possible, but as a preview method for sequences which will eventually end up on tape the AnimMATE suite is a solid addition to OpalVision.

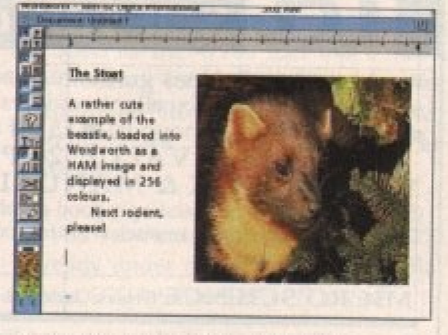
Improvements to OpalPaint 1.7 include the addition of a properly functioning Alpha channel and the inclusion of a Magic Wand feature.

The Alpha channel is an extra 8-bit data channel which can be added to any 24-bit image and used for effects such as linear keying. What this in effect means is that an image can be gradually faded in or out over 256 levels of brightness and the background image, be it live video or another graphic, will seem to fit smoothly into the foreground.

When Alpha painting mode is selected, the user is given a paint selection of 256 greyscales, with black representing complete transparency and white opacity.

A transparency mask can then be designed so that various parts of the screen are more transparent than others to allow keyhole effects or, if desired, a full screen gradient from black to white enabling linear keying, the smooth transition from graphics to live video.

A major drawback is that these sort of live video effects can only be used in conjunction with the OpalVision genlock/frame grabber module which is not yet available, but once fully equipped the OpalVision should be a useful video production tool. AC



Super colour presentation for wysiwyg colour printing

Final Copy II fonts

Final Copy II was a product whose almost universally smooth passage past the reviewers was marred by only a couple of faults, the most criticised of which was the program's complete reliance on its own font format.

The resulting inability to make use of either Agfa Intellifonts or Adobe Type 1 PostScript fonts restricted Final Copy II users to the small collection of typefaces supplied with the original program.

Since the general murmur of disapproval, however, Softwood have been hard at work implementing both Agfa and PostScript-compatibility and the result is a much more flexible package.

In addition to the Softwood fonts supplied with the original release, FCII now has 16 typefaces covering four popular fonts as used in most PostScript laser printers.

This includes Helvetica, Schoolbook, Times, and Courier and gives the user the ability to output high quality documents with better wysiwyg than that possible with the "best guess" method employed when a document does not use Adobe fonts.

As a full-colour wordprocessor for the non-professional market of home users, Final Copy II is now a more complete product, and still beats Wordworth v2 hands down on graphics speed.

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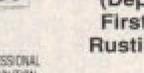
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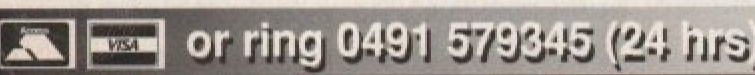
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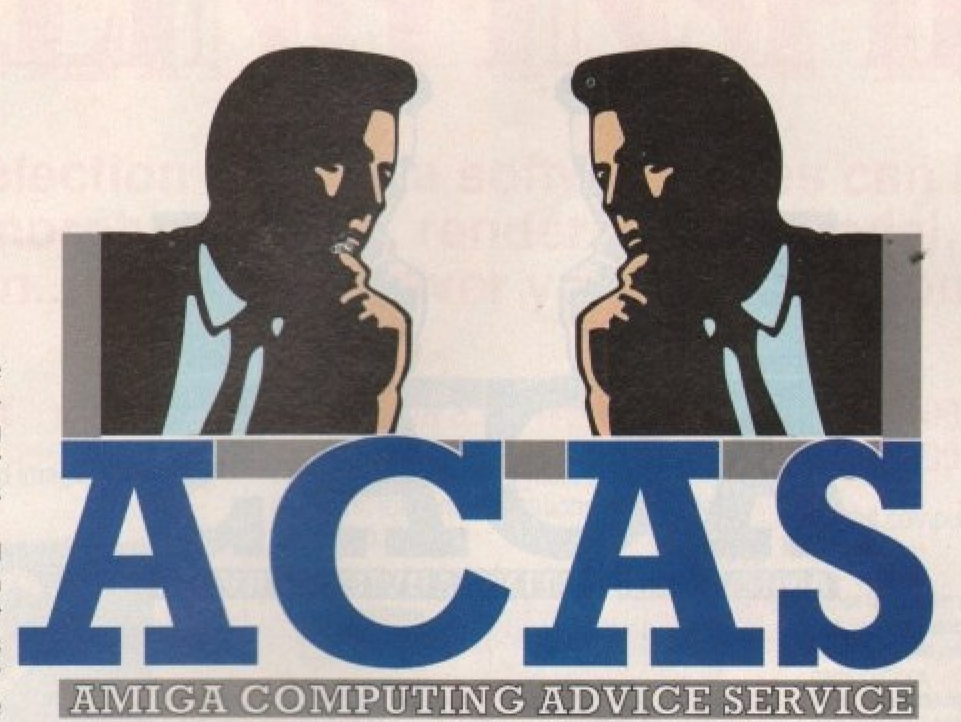


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Sound advice from our experts, this month on upgrading to an A1200, adding a hard drive to anA500, installing Maxiplan – and much more

A600 memory

Q I have an A600 which I use mostly for games and wordprocessing. I am considering buying either an external 1Mb RAM upgrade for the credit card slot or else a second disk drive.

Which would improve most the overall performance of my computer? Would an upgrade help to cut down on the number of disk swaps necessary during a game as much as a second disk drive would? Finally, does the external RAM upgrade have some sort of a through port in case I ever wanted to upgrade again?

Brian Gallagher, Co Tyrone

A *Interesting problem, but with a simple answer. Buying an extra disk drive will help considerably to reduce disk swapping when using commercial packages but games don't always take advantage of extra drives.*

When it comes down to memory this too is a worthy add-on and will help with most games and definitely improve the performance of commercial packages.

There are two ways to add memory to your A600. One is through the PCMCIA slot on the side of the machine, but these cards do not have any kind of pass-through and are expensive. The second way is to add a memory upgrade to your trap door expansion .

If you take into account how much a PCMCIA card costs – about £129 for an extra 2Mb against a 1Mb trap door expansion costing around £35 – then you'll be able to buy the trap door expansion and a second disk drive for £90, which is less then just the PCMCIA card. This will give you the best of both worlds.

1200 compatibility

Q Recently I bought a copy of your magazine, the first in almost... well a very long time. I've recently taken up computing again, and I plan to write software on the Amiga like I did on my C64 and Vic 20 (remember the days you could... no, had to try to fit a game in just 3k of memory?).

Currently I'm the not-so-proud owner of an A500, which I bought a long time ago, and never bothered to upgrade to newer chipsets or Kickstart versions. What I did buy was a second floppy drive, some additional memory and a Midi interface.

So now I think it's time to sell it, and purchase an A1200 model, so I can finally get rid of the load disk drive, lots and lots of guru messages and so on.

However, after reading about it in your magazine, I have some questions which I hope you can answer for me. Here they are:

1. Can I connect my external drive to the A1200, or do I have to buy a special A1200 version?

2. Same as above, but now the apparatus in question is a Midi interface.

3. As I am very interested in (and use a lot of) music software, I would like to know if Bars and Pipes Professional will run on an A1200 and if it will run faster. The reason I ask is because I've read in some test that because the A500 is slow, you can't use too many modules to change Midi data in real time.

As the A1200 is about five times faster than the A500, you should be able to use (about) five times as many modules as with the A500. Right?

4. Is there a special version of Amos (under development?) for the A1200, that can use the new graphic modes? Or is Amos flexible enough so that you can use the new modes with the "old" version?

5. And, speaking of Amos, does Amos support external devices, such as a Midi interface? Do special commands exist within Amos for sending, receiving and altering Midi data?

6. If you update an Amos version by using, for example, D-Sam, will the Amos compiler automatically handle the new commands or does the compiler need to be updated as well?

7. Specs for the A1200 state that a maths co-processor (68881/68882) is optional. Can this be fitted directly onto its printed circuit board, or does it come as an extension?

8. Are accelerator boards for the A1200 already under development? and what about SCSI interfaces and CD drives?

9. Does the A1200 have a built-in clock (with battery backup)?

Den Walterfang, Netherlands

A *Normally we don't answer so many questions from one person, but as these are related to such a new machine which a large number of our readers have or are going to upgrade to in the near future, here goes:*

1. Most new drives should work with the A1200, but it's best to ask the supplier before parting with your cash as some drives are not compatible due to power differences between the older Amigas and the A1200.

2. Yes, your existing Midi interface will operate quite happily on the A1200.

3. Yes, Bars and Pipes will run better on accelerated machines. The modules you

➤

Protext poser

Q Thank you for the excellent wordprocessor Protext, with the January issue of *Amiga Computing*, it really makes my amateurish efforts look very professional indeed.

I am using an Amiga 500 Plus, enhanced by a "plug-in" 2Mb chip RAM upgrade. Despite using all the commands from Protext's help facility and your very good CoverDisk article, I cannot get the program to save documents or files to my external drive.

If I try to save from the menu, the massage "disk full" appears on the monitor.

R Davies, Evesham

A *If you try pressing the Esc button you will then enter the command mode – simply type in "save df1:Filename" filename being the name you wish to your text as.*

A600 printer driver poser

Q I am a new owner/user of an A600HD and bought your magazine (February) issue. In the free book *Mastering the Amiga* that came with the magazine there is a section on printer driver installation page 31, which states that when opening the Utilities window in the Workbench window there is an item called install printer.

No matter how hard I look I can't find this program, I have studied the manual *Using the Amiga Workbench*. Is there a mistake in *Mastering The Amiga* or am I doing something wrong?

Please help with this problem as I am slowly going out of my shell.

D Bibby, Braintree

A *To change your printer driver you open your prefs drawer and select printer, you will now see a box in the left top corner of the screen. Click on the printer driver you want to use and then click on the save button.*

Say you want to use a Canon BJ10 driver, it is not available in you printer drivers list but you have a disk with this driver on. You will have to copy the driver from the disk with it on and place in your printers drawer which is in the Devs drawer on your Workbench.

You then have to go to prefs and select printer again. This time the new driver should appear in the available list of printer drivers.

mentioned prefer to run from fast memory which can be manipulated faster than chip RAM.

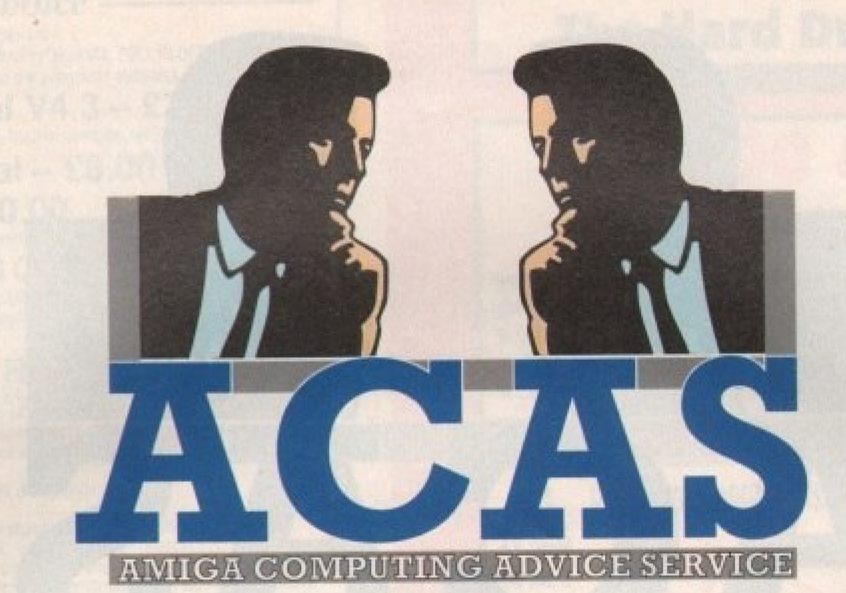
4. Yes and no. The new version of Amos will run faster on the A1200 but as yet it will not take advantage of the A1200's new AGA chipset, although this may appear in the late summer.

5. Amos does support external devices through all of the ports, but to program it to control a Midi interface will take considerable knowledge of Midi devices and signals.

6. No, the compiler will not need updating.

7. Yes there is space on the motherboard of the A1200 for a maths co-processor, but you have to have it fitted by Commodore through Wang. You can also get trap door boards to upgrade to a maths co-pro.

8. The MBX1200 is the only board to offer a speed increase for the A1200 at this time, although several companies are planning much faster boards in the near future and there are rumours that CDTV will be available for the A1200.



A500+ hard drive

Q I need a hard drive, but am confused as to their differences and which is most suitable for my use. I want to run programs like Final Copy and Protext, and probably a paint package such as DPaint3, although I don't use graphics very much.

Obviously the GVP HD8 is an option, but what about the others? I noticed Evesham Micros are selling a reference 100 for £229 – why is this unit so much cheaper than a GVP?

The Ascom Addhard is another possible, but it has no SCSI port. What's a SCSI port and do I need one? Roctec have a unit at £289, is that one any good? No wonder I'm confused!

Secondly all these units talk of extra RAM. Will I need RAM, and if so, how much? I appreciate you can't recommend a maker outright, but I really do need some advice as to which unit would be the best value, without going for the most expensive and getting lots of functions I don't need.

Pete Southey, Chichester

A *You sound as though you really are in a pickle so we'll keep it simple. For what you need you will have enough storage space with around 40 to 52Mb hard drive, and your 2Mb of RAM should also be OK for most things although fitting a hard drive will reduce this slightly.*

The main difference between all the drives on the market is whether or not they are SCSI or IDE drives. As a rule SCSI drives are quicker, but the speed difference is not enough for a home user to worry about.

Good features to look out for are ability to add extra memory and a DMA side expansion pass-through.

Also if you play games it's a good idea to see if the drive has a switch to disable it while playing. As you said, it's hard for us to recommend outright a specific model, but over the next few months we will be reviewing some hard drives in the Shop Window section of the mag, starting in this issue.

Maxiplan hard drive installation

Q I have just purchased a copy of *Amiga Computing* (issue 58, March 93). The spreadsheet program runs all right from the disk, but when I attempt to run it when I have booted up the computer from another, it says *explode.library not found*, even though it is on both disks in the libs directory.

Could you please inform me what to do, as I would like to install it to my hard drive. I am unable to contact you on the hotline, because I don't have access to a phone, neither am I able to purchase your magazine on a regular basis to find out the answer because of unemployment.

D Bartlett, Swindon

A *Quite a few people are having the same problem as you so we'll explain what you need to do.*

First copy the entire drawer called Maxiplan to your hard drive, then make sure you have the explode.library in your hard drives libs drawer. If not, copy it across.

Then you have to add the following line to your startup-sequence:

```
assign Maxiplan4: dh0:Maxiplan
```

This line can be added using either Ed from Workbench or any text editor. Once you have added this line and re-saved your startup-sequence you must then re-boot your machine for this command to take effect.

You should now be able to load Maxiplan direct from hard disk with no trouble.

Power Patch

A I am writing with reference to the letter printed in your March issue from John Gray, who was experiencing trouble with placing the power patch program in his startup sequence.

I had the same problem with error 104 being given when run from the startup sequence, on my A1500 running under Kickstart 2. However I found that it is possible to run PP from the startup-sequence by running it in the background using:

```
run >nil: <nil: PP ram:
```

or alternatively using the public domain program called RunBack. Unfortunately I don't know whether this will work under Kickstart 1.3. However I see no reason why it shouldn't. I hope this helps Mr John Gray or anyone else having trouble with PP.

Stephen Bates, Worksop

Multiview

Q I own an Amiga 1200, and I am desperately trying to use the Multiview program in Workbench to load a picture and use it as a background for my Workbench 3.0 window, or any window for that matter.

I know this can be done as I have seen a picture of it in another magazine. Also, is there any way of getting programs to think I am using fast RAM instead of chip RAM? Some programs refuse to work unless they can work in fast RAM.

Scott McCarthy, West Glamorgan

A *First of all, Multiview isn't the program you use to display pictures as backdrops in WorkBench 3. The program you require is in the prefs drawer and is called WBpattern.*

To use a picture as a backdrop, load the WBpattern program and then click on the type gadget until it says Picture. Then click on Select Picture. Load the picture you want and click on OK.

Once you have selected your picture simply click on save. If you now reset your machine you should have your picture as a backdrop.

As for your second question, the answer is simply no – you can't turn chip memory into fast, so the only solution is to buy some fast memory.

Those 'cheap' American Amigas

Q In your magazine recently you were comparing Amiga price differences in Britain and Europe. Last summer I was teaching kids Animation in the USA.

I managed to convince the camp director that buying an Amiga would be a good idea. So I visited the local computer shop and picked up an Amiga package for less than a fifth of the cost in Britain.

Getting swiftly to the point, in an earlier mag you gave details of various changes required to a US Amiga to enable it to work in the UK. What changes would you need to be made to an A1200, assuming it wouldn't be used with a TV, to make it work in the UK.

David Thomson, Dundee

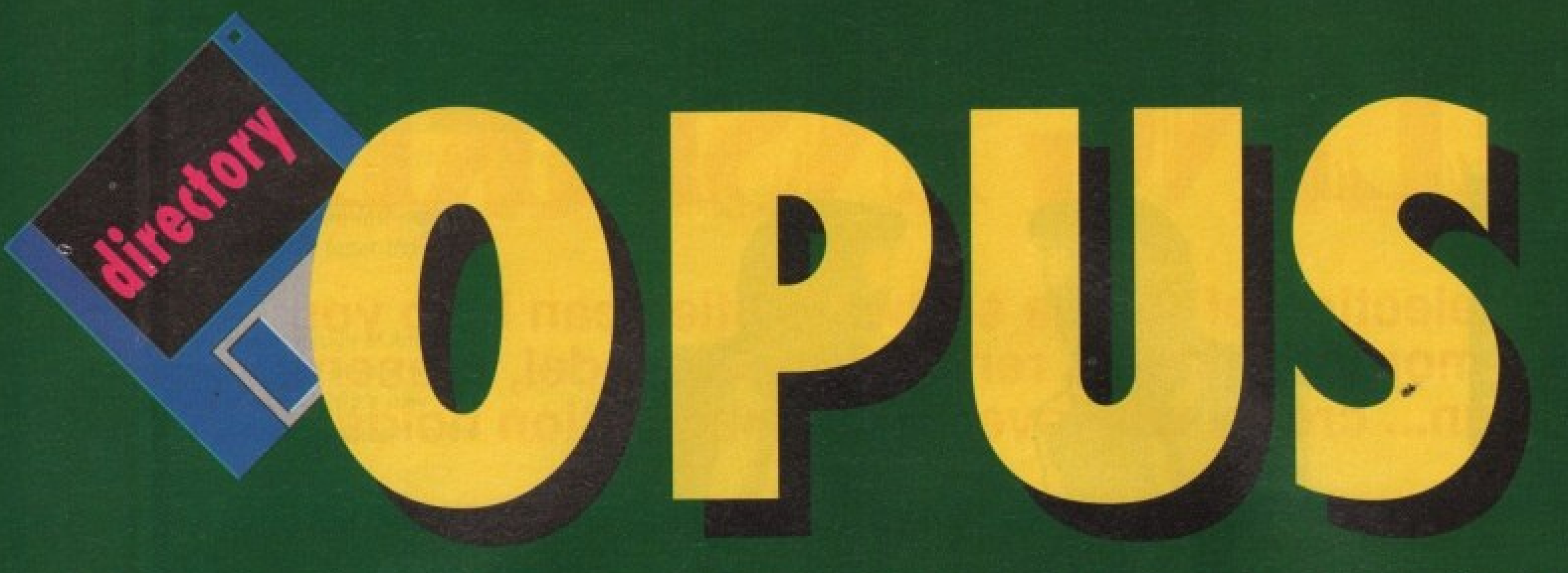
A *If your using the A1200 on either a monitor or a TV through a scart socket you will have no trouble with the display , once you have set the screen prefs from Workbench to PAL. As far as power goes you just need a British power supply, either an A500 one or a A1200 will do.*

Why you should want to do this is beyond us, as the Amiga A1200 is roughly the same price in the States at the moment due to the falling value of the Pound against the Dollar. At the moment it's far cheaper to buy an A1200 from Germany – quite unusual, as the A1200 is manufactured in Scotland!

If you do buy an Amiga from Germany, some of the keys are in different places. Getting round this just involves swapping the Key caps and then setting the local to English from Workbench.

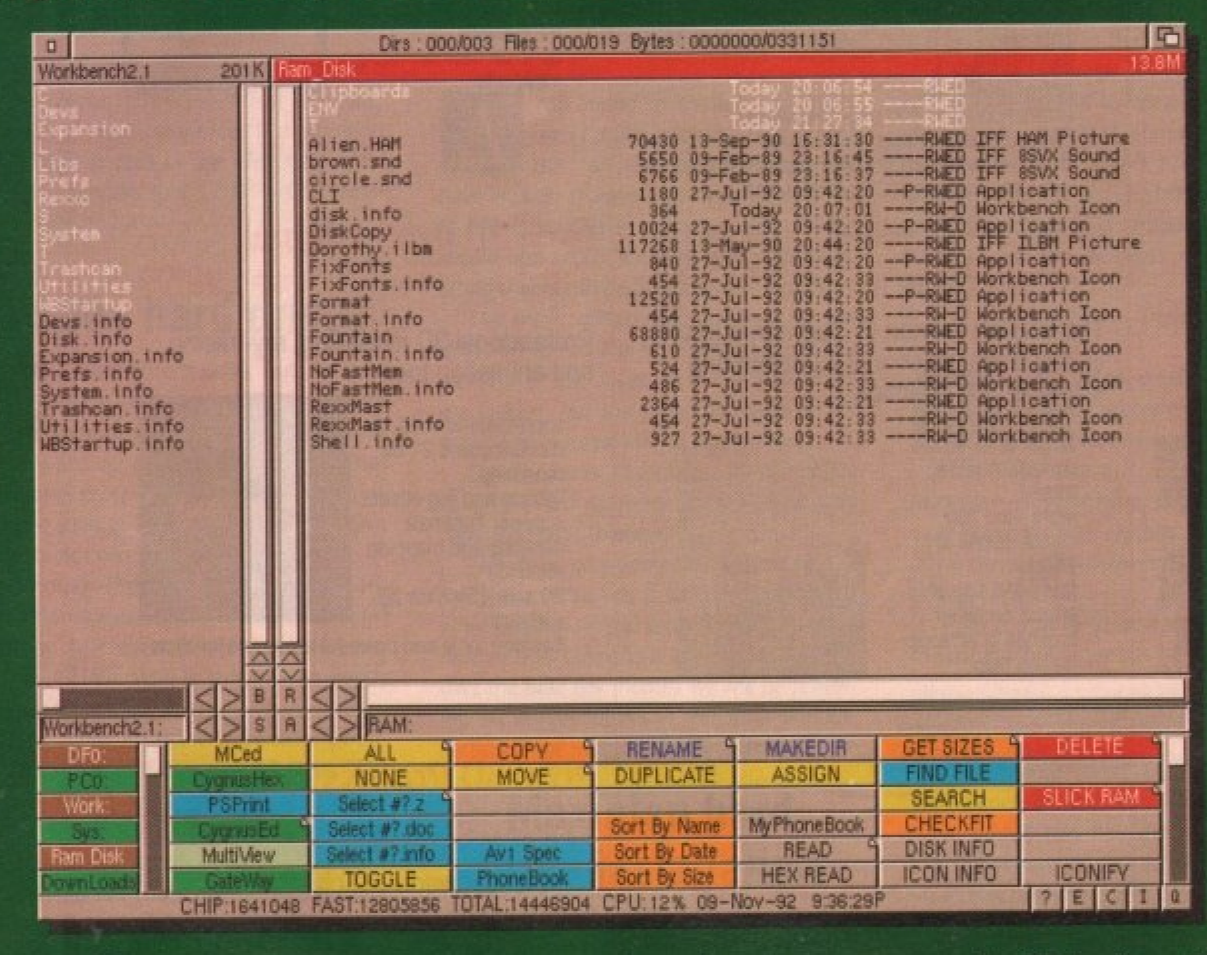
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Paul Austin continues his voyage into the virtual world with an exclusive review of VistaPro 3.0. The question is, can it beat the impressive efforts of Scenery Animator2?

The great indoors

The fish-eye dffect of an ultra wide angle lens

As you may have spotted, this month's issue is something of a fractal spectacular with landscapes and spirals, Mandlebrots and clouds, all emanating from what is usually the arid artistic plane of pure mathematics.

Thanks to the aforementioned maths, VistaPro3.0 takes the already impressive talents of its predecessor and expands on them with a whole range of added features which without doubt make it the most flexible fractal generator on the market.

However flexibility alone doesn't make VistaPro3.0 the only choice. If you're in the market for a fast results and a totally self-contained system, Scenery Animator 2.0 certainly puts up a spirited fight.

For existing Vista fans, the all new 3D interface will come as a pleasant change but beneath the initial front end lurks a collection of new screens dealing with the improved graphic range of the Amiga, additional tree rendering control and perhaps most interesting of all, the program's new feature placement options.

It's really on the main control panel where the fun starts. As you can probably see, the top of the screen is dominated by the program's orientation controls for both camera and target.

Basic setup couldn't really be simpler with placement of both camera and target being a matter of clicking on the map which instantly reads the data into the appropriate display with a 30 metre vertical offset for the camera.

Between the relative data for both camera and target lurk the essential axis control buttons which allow you to specify whether or not a particular axis should be locked – a useful option as accidental repositioning can and does happen.

Immediately beneath basic orientation come a selection of more subtle effects including numerical bank, heading, pitch and range controls, the first three of which are pretty self explanatory. The fourth defines the distance at which the software will ignore features within the scene.

Assuming the basic pointing of the camera is complete, the really enthralling part of scene design can begin. As you'd expect basic feature control comes first, with sea level, tree line, snowline and haze being the first steps on the road to realism.

Clicked in

Like their counterparts in the orientation section, the necessary data can be input either via typing or more likely by a well placed mouse click which when combined with the desired feature button defines the relative height for the chosen feature.

Below these essential elements come a whole host of optional features all activated by their own button. Depending on the complexity of the option the action will either produce a more involved control panel or simply operate as a toggle. The first four buttons definitely fall into the first bracket with the exception of the lake button which simple reports the specified height of the new lake, draws it on the affected area and then asks for confirmation.

On the other side of the coin come the tree options which live on easily the most complex option screen within the program. As the screenshot shows, the available options are immense but in short they boil down to various levels of detail for the trees and grass within the scene.

In addition its from here where you can define which, if not all, of the four tree varieties will appear, their density and height plus whether they're to be rendered as 2D or 3D objects. As if that's not enough, texture can be applied to further enhance the effect.

Although the full complement of options are shown in the grab, things aren't quite as complex for the beginner as only when the Expert option is chosen will the detail settings for the four tree styles within each variety become available.

Due to this style within a variety, the actual number of different tree "looks" leaps from four to 16.

The next button – namely stereo – offers another unique feature allowing you to specify the generation of a left and right view of the scene which can then be combined and viewed with the 3D shutter glasses.

Alas this doesn't mean you can use red/green gel lenses as dedicated hardware is essential for viewing – a nice touch but probably useless for most people.

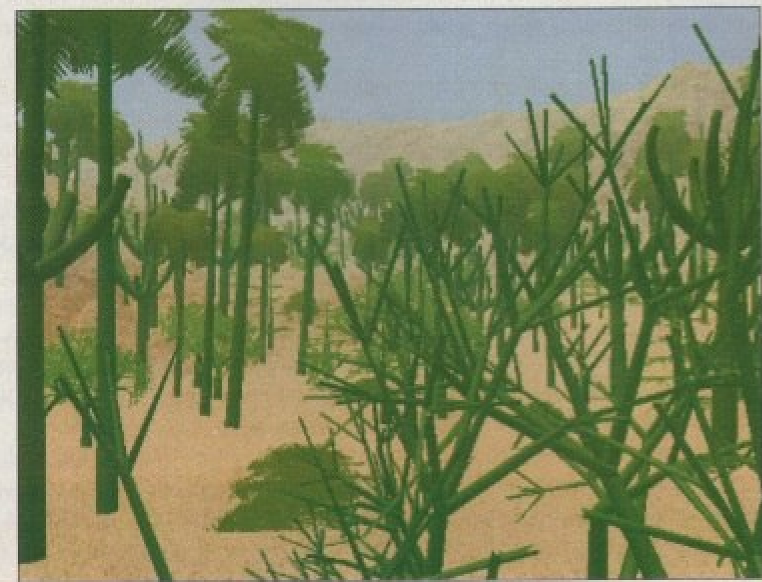
Cloud control comes next, again producing a designer interface allowing the generation of random clouds or alternatively cloud formations derived form a DEM file but alas there's no anim option as found in Scenery Animator 2.0.

Remaining options

Fortunately for the majority of the remaining options things aren't quite as complex with an assortment of on/offs coupled with accept effect features available for roads, rivers, landscape smoothing/enlargement and shrinking, buildings, stars, cliffs, valleys, palette locking and horizon definition.

As for the rest, a little more detail might be handy, especially for the new place function. This allows you to zoom into a specific area and manually add grass, trees, buildings and roads as required.

To further improve quality, an option to lock out random features can be employed allowing only user defined elements to appear in the scene.And of ➤



A small oasis in the Vista landscape

The main screen complete with Vista landscape


Spectacular scenery created from a Julia fractal

The incredibly complex tree requester in action. Thankfully it's easier than it looks

course, what you add can also be removed when necessary. There's even an option to roughly edit the landscape itself with a draw option, allowing basic re-scaling of the immediate terrain.

Assuming your scene is now complete with designer trees, lakes, river, building, roads and God knows what else, it's time to make those finally quality control decisions before hitting the Render button.

In the final portion of the main screen awaits a series of icons allowing you to specify just how photo-realistic – and thereby time consuming – you want your latest creation to be.

The first step is to select the polygon size. In the highest setting a single polygon can be the size of an entire mountain side while in the smallest you achieve the kind of quality shown in our screen shots with the compromise being one of time – although it must be said that VistaPro3.0 is easily on a par with Scenery Animator2.0 for speed, especially considering the additional detail offered. Next on the list comes the transition dithering which rather than dithering the entire image simply controls the fade between elements. The higher the figure the smooth the overall look.

The texture option is in a similar vein but rather than smoothing it adds more detail to the polygons closest to the camera thereby adding additional detail to the image. As you progress through the four available settings quality


The wide open space courtesy of Vista's port, starboard and forward options

The improved, function-filled pull-downs

As before the package has a full complement of pull downs menus opening as ever with the Project menu which allows you to specify the size of the overall landscape varying between small, large, huge and auto sizes.

In practice this simply means that either single or combination DEM landscapes can be loaded allowing longer animation sequences or even more vast panoramic stills.

The available load options allow the import of four different types of DEM including giant region landscapes created via the large, huge and auto options.

In addition you can also import clouds (which are in fact automatic DEM to cloud conversions), Cmaps (otherwise known as colour maps) plus standard and 24-bit IFF-images.

As for saving, all of the above await plus an option to output both RGB files and Turbo Silver/Imagine objects with the only limitation being that landscapes can only be output as standard or extended DEM files.

Within the next pull-down comes one of the most striking updates to the package in the form a full WB3-compatible image control panel which when active presents all the existing 1.3 screen modes plus the latest options available via WB 2 and 3.

These include Ham8 and 256 colours, plus the complete range of AGA productivity modes including super hi-res which means the program's maximum on-screen resolution will now extend right to limit of the new chipset – but only if your machine is already operating in the specified mode. To supplement the screen options the package benefits from a collection of automatic overscan settings for all the available screen modes, and like its counterpart the 24-bit buffer can also be defined to any size you require.

As well as Amiga screens the package also has the option to write directly to either DCTV, Ham-E or the Firecracker 24-bit board. In the case of the DCTV Virtual Reality Labs have cured a shortfall in the previous version by finally offering both three and four-bit-plane output.

Within the same pull-down some old favourites reappear in the form of the foreground and background options which allow the user to import existing graphics and place them – not surprisingly – either in the foreground or sky area of the image, thereby lessening the need for additional and expensive image processing software such as ADPro.

Next up on the pull-down trail comes the program's script options and built-in animation control. Unfortunately standard animation within VistaPro3.0 is sadly lacking in relation to Scenery Animator 2.0.

In fact without the assistance of MakePath, the program's optional anim generator, the best that can be managed from within the software is straight line from A to B.

Although animation is limited, all isn't lost concerning scripts, in fact an additional manual comes as part of the package and goes into great lengths explaining the potential of controlling the program entirely from script files.

In addition, scripts can be very handy for defining default setups complete with all the detail settings, tree densities and so on, which otherwise can really slow down the generation process if carried out manually every time you boot-up the package or wish to re-define the end result of a render. With the assistance of pre-saved scripts, literally any

All the AG options you'll ever need but it will cost you 6 Mb of RAM to run them

Is it with having?

As mentioned way back VistaPro3.0 is definitely the more flexible of the two fractal generators but on the other hand it isn't as complete a package as Scenery Animator2.0 which unlike Vista comes with complete anim cc.ntrol as standard.

It's true that Virtual Reality Labs try their best to address the problem by adding 30 DEMs as opposed to just four with Scenery Animator2.0 plus a complete MakePath fly-through script for each.

Basically it all boils down to what your requirements are. If your needs are for the occasional backdrop or anim for video or multimedia, Scenery Animator is both easy to setup and contains all you'll need for high quality if rather basic anims and statics.

If on the other hand you're looking for a more artistic platform which can do more than simply generate backdrops or basic anims, VistaPro3.0 is the only choice – but be warned, setting it up is definitely more complex and re-renders are usually more frequent.

improves but again at the expense of rendering speed.

Last of this particular quartet comes another version of dithering but in this case it's of the sort found on many Amiga packages designed simply break up the uniformity of the image in an attempt at added realism.

Framing your scene is the next task and to help the process the program offers a variety of lens controls starting with twin wide and zoom settings plus a user definable option responsible for the fish eye effect seen in one of our examples.

Yet another new feature also makes its appearance here in the form of a port, starboard and forward view point which as yet another example shows allows three images to be generated from the same point which can then be appended in an image processing package producing a widescreen effect.

The penultimate option takes the form of the program's internal fractal generation allowing you to create your



Although a nice idea, buildings tend to look like gravestones

own landscapes or DEMs as either islands or solid land mass by simply specifying which you prefer and then entering a seed from which the fractal is produced.

In addition the panel also offers a series of four fractalising settings which define the relative roughness of the newly created landscape while the final stretch option allows an increase in depth of the DEM to be set and applied by the user – both of the last two options can be applied to existing DEMs to add additional fractal detail to the image.

Lastly comes one of the most important mood-making element of the program, namely Lighting. From this you can either opt for a selection of preset lighting angles or alternatively define your own.

To enhance the effect, an exaggeration option can be applied to deepen the mood while a quick but effective shadowing button adds that final touch of realism to your creation.



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The bottom line

Ease of use = 7
Implementation = 8
Value for money = 9
Overall = 8

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Tel: 0753 551 888
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setup can be loaded and applied instantly, a graphic example of this coming from the final pull-down which offers four such scripts as togglable options which kick the package into various quality modes.

Alongside script control within the same pull-down comes the program's animation output options which include normal anim5, RGB, IFF24 and Vanim which is the program's own proprietary direct-from-disk anim format, which although useful is limited to a maximum of 12 FPS.

With lack of animation control but abundance of output options the package does seem a little lopsided, but in fact this variety isn't quite as peculiar as you might imagine as with the package comes 30 pre-designed scripts designed specifically for individual DEM files.

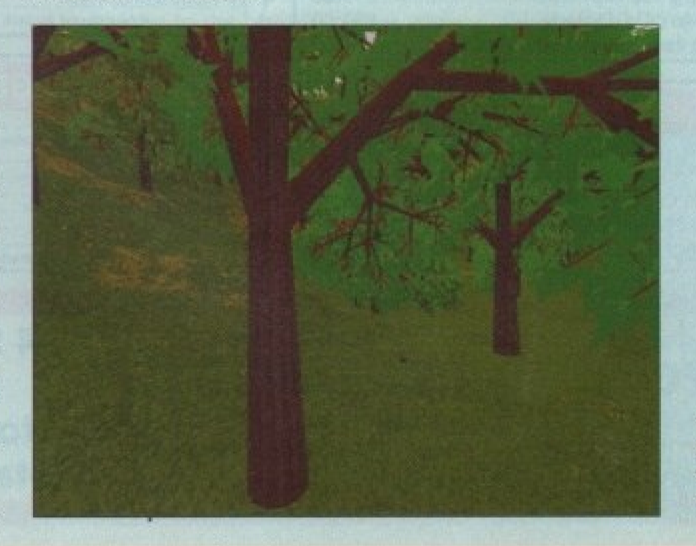
The aforesaid scripts are obviously the work of MakePath which *AC* will cover along with Terraform in the Update column next month.

This dependence on MakePath is the real reason for such varied animation support and with that in mind it seems strange that both it and Terraform2.0 don't come as part of the VistaPro3.0 package. Unfortunately to get hold of this almost essential software you'll have to contact Virtual Reality Labs direct.

The last remaining pull-down holds another Vista favourite which like full AGA support is unique to the package. From the ImpExp pull-down comes Vista's excellent colour map and IFF loading and conversion tools.

From here you can either import or export colour maps or save maps as 2D IFFs which can then be edited and re-imported complete with the new features ready for re-rendering in 3D. In addition, existing 2D images can be brought in and converted into DEM files according to colour or intensity. So for example, it's possible to digitise images such as real-world maps, apply the appropriate colour map, and import them ready for rendering as virtual reflections of their real-world counterparts.

This above all else makes VistaPro3.0 special and a potentially invaluable artistic tool and with the addition of the new Turbo Silver/Image output options, its potential is stretched even further.



Tree detail is pretty impressive but not realy any better than scenary Animator 2.0



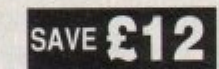


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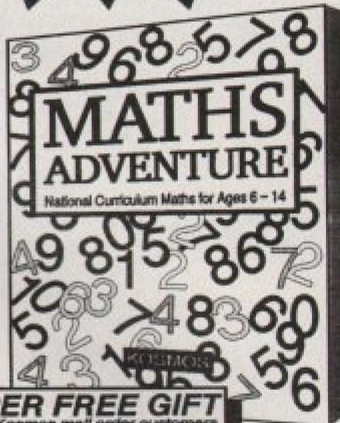


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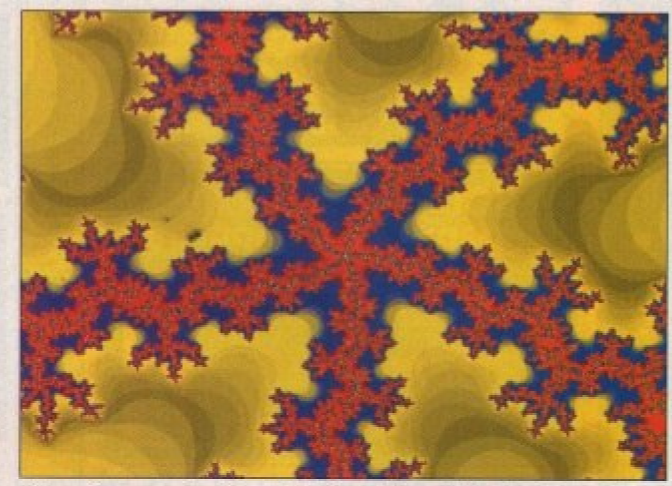
Fractals, and more often fractal generators, tend to get a hard time in the press, primarily due to their tedious operation and equally boring exponents.

No matter how hard you try, fractals by nature lead to dreary conversations about chaos theory, super strings, ley lines, Pink Floyd, The Prisoner and all things pseudo-intellectual – invariably rounding off with a side-splitting recital of the parrot sketch...

With this sort of reputation it's a tricky business trying to convince any normal person that fractals can be interesting and more importantly useful.

As you may have guessed I'm not particularly fond of anything that maintains the fury


A spectacular Julia spiral that's simply mind-blowing when animated


Yet another example of the intricate variety available from Fractuality

A fractal fantasia...

Paul Austin spotlights Fractuality, a program that's guaranteed to send anoraks into ecstasy and turn artists into insomniacs

collar image of the average computer user and as a result I must admit to exploring Fractuality with a healthy degree of cynicism.

Much to my surprise – and that of the equally cynical *AC* staff – Fractuality is unbelievably addictive by being blissfully simple to operate while producing stunning results.

Although fractal creation has a reputation for complexity, within Fractuality this couldn't be further from the truth as the entire procedure is controlled by simple mouse clicks and toggle boxes.

Actual generation and definition of fractals is simple. To create your first image all you need do is click on the generate image buttons which instantly computes the basic building block of Fractuality's endless repertoire, the amoeba within the primordial mathematic soup being the good old Mandelbrot set. From this familiar image an unlimited variety awaits either via ever closer examination of the Mandelbrot itself or alternatively by adventures into its alter ego, namely the Julia sets.

This new breed of fractal awaits throughout the basic Mandelbrot and by simply clicking on any point a completely new and radically different selection of images can be created.

This option, to either zoom into the basic Mandelbrot or diversify into the Julia sets, means infinite variety awaits. The option to zoom into the fractal landscape is taken to its logical extreme in the form of animations which can be generated between two predefined locations within the fractal of your choice.

Animation is achieved by first saving an IFF of Fractuality Params file to disk, then continuing deeper into the fractal. When a suitable finishing point is found the image already on disk can be used in conjunction with the present one to generate an entire animation with all the tweens being automatically produced by the software.

The number of frames and amount of zoom is completely at your control. As each new frame is generated it's saved direct to disk. As a result, the size of anims is limited only by available disk space. This is especially useful when working with Fractuality's optional 24-bit output.

Obviously with the varied needs of potential users, flexible output is essential and here Fractuality scores well with options to render hi-res 16 colour IFFs, Extra Half Brite, 32 colour lo-res or 24-bit IFFs in a selection of standard, interlaced and overscanned screen resolutions. However, there's no AGA support as yet.

Although this seems a well varied selection I must admit I would prefer an option for the screen resolutions of your choice. Although fine for certain applications, this rigid structure will often mean some form of image processing will be required in order to supply the exact output you may require. Admittedly this is a small point but nevertheless a bit annoying.

I got the power

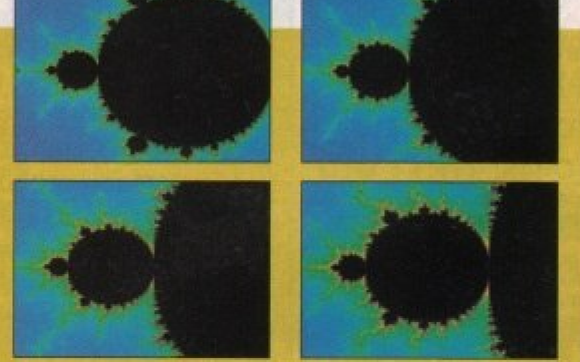
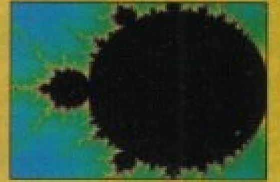
As the techno-bods may be aware, a true fractal is an infinite entity and by definition should allow a limitless amount of zoom while retaining the same degree of detail.

In the case of Fractuality this isn't strictly the case as for the sake of speed the maximum zoom allowed is 0.000000000001.

For maths purists limiting a fractal's mathematical perfection can be considered sacrilege but this tiny trade does make Fractuality the fastest fractal generator I've ever used – it's ideal for 68000 machines. To put the maximum zoom into perspective it's worth plagiarising the manual a little.

Assuming you're working on a 25cm screen at maximum zoom the unseen area of the Mandelbrot you are within would be roughly 2,500,000,000 kilometres across – an area big enough to contain the complete orbit of Jupiter. Impressive stuff!

And of course if you employ the program's dwell feature this tiny particle of fractal space will be just as clear as the entire Mandelbrot prior to your mammoth zoom.



Fractal animation in action as the Mandelbrot set comes under close inspection

In addition to sizing and file types, palette control is equally important. Fortunately this aspect of the program has been particularly well designed with a selection of 16 predefined colour gradients/combinations.

If you prefer a totally original look, DPaint-style colour pots, sliders, copy and swap options allow a new palette to be built from the ground up.

Something

In addition to the basic 16 colours additional options allow rendering in both two and four colours plus a definable 24-bit range which in effect limits the smoothing between each colour component – a process which can often detract from the image rather than enhance it.

The final, and definitely the most mesmeric aspect of the program, is the built- in colour cycling which, with the aid of definable speed settings, allows the already beautiful fractals to pulsate with colour.

This feature above all sold the final die-hard *AC* cynics on the software as conversation slowly became embroidered with the kind of phraseology usual reserved for Woodstock or Glastonbury. Another attractive aspect of the palette is that you don't need to re-render to experiment as palettes can be interchanged on an existing image as required. Only when a new palette is decided upon does a re-render become essential.

OK, I admit that apart from the occasional artistic or DTV application Fractuality has fairly limited practical appeal, however they don't come much more cynical than yours truly and I must admit to being completely hooked.

If you're into serious maths, hardcore music, mind-blowing art or equally mind-blowing substances, Fractuality is simply a must.

AC

Ease of use 10
Implementation 9
Value for money 9
Overall 9

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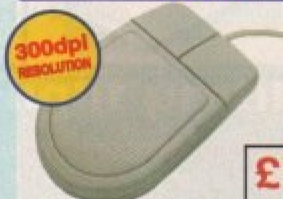
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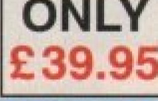
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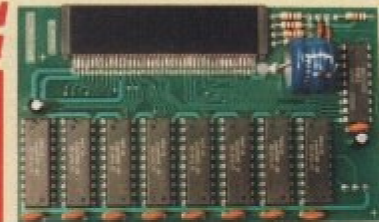
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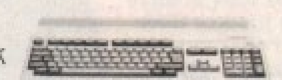
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Virtual valleys

Paul Austin takes a stroll through the fractal hills and vales of Scenery Animator v2.0

Although largely ignored due to VistaPro2, Scenery Animator v2.0 is making a comeback with a combination of good value and solid performance.

Like its contemporary, the package employs DEMs (Digital Elevation Models) to generate real scenes, four of which come with the package with an additional 32 available as add-ons.

As the name suggests, it is heavily geared towards animation and as a result boasts options to create both standard IFF and DCTV anims direct, as well as generating single frames in both of the above formats plus IFF24s and 24-bit PCX images.

Incidentally, full 24-bit anims can also be created on a single frame basis. Thankfully, all animations can be rendered either in full or in part.

Although the main screen tends to be where most time is spent, the package is actually split into three separate areas. However, before wandering too far I'll concentrate on the main screen's primary function of finishing touches and fine tuning.

The screen itself is dominated by the preview window which updates automatically to show the present camera position and subsequent landscape whenever alterations are made.

In addition, the window also has a dual purpose as an optional rough anim viewer. Whenever an anim path is complete the software will generate a useful but admittedly rather jerky preview prior to the lengthy rendering process.

In order to enhance the performance of the window, good camera control is essential, and to this end the software boasts an impressive array of orientation, zoom and pitch controls.

For basic orientation the window again comes into its own as pointing the camera is simply a matter of clicking on the desired point within the window.

Icon controls

Actual movement, however, can be a little more involved. In the right-hand corner of the screen awaits the program's co-ordinate controls in the form of singular and combined X,Y and Z icon controls.

These work exactly as you'd expect with the various options either moving the camera back and forth, up and down, left to right or a combination of two axes simultaneously.

In order to control the effect, a crosshair box allows directional information to be input via the mouse.

Although a usable method of navigation, I must admit it does tend to be a little clumsy and as a result basic camera placement is often much easier elsewhere in the package.

Alongside the aforementioned box comes the final selection of positioning controls. As mentioned earlier, camera movement is well catered for elsewhere but the main screen is definitely the best place to adjust banking.

Once active this particular function replaces the crosshair with an artificial horizon which can then be adjusted via mouse clicks.

Finally we come to the rotate and zoom options, the first of which emulates mouse-driven rotation within the crosshair – why this has been added in addition to the mouse option is a mystery.

Zooming, however, is a much more useful feature, allowing the camera to remain static while altering the focal length of the camera, producing a telephoto zoom which can vary from 18 degrees for ultra-wide angle to 400 for maximum zoom.

On the lower left of the screen awaits the program's anim controls which we'll look at in detail at little later, while above these come the all-important features which add the reality to your creations.

First up comes arguably the most important of all the parameters – Land control. From here you can add snow, rock, vegetation and soil, all of which can be given default elevations.

In addition, it's possible to adjust the ➤

Flight profile

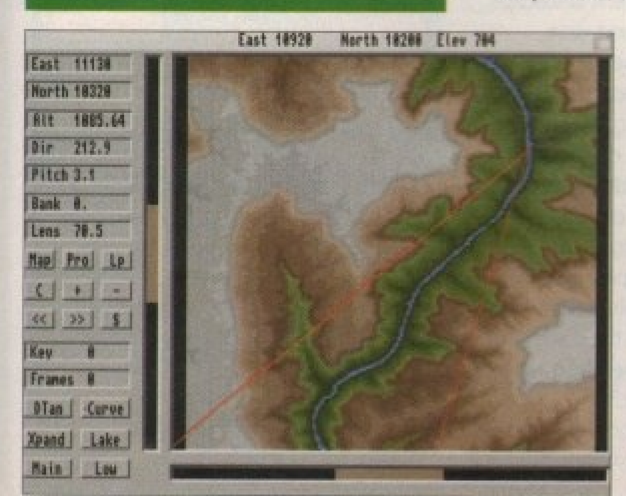
Although a separate interface, the program's Profile screen is really part and parcel of the anim options as it's only really of any use when a path is complete.

From this unbelievably boring screen a few essential changes can be applied, the first of which is the relative altitude at each key frame. Often the software doesn't make the perfect choice as far as altitude and indeed pitch are concerned and as a result a bit of minor editing does a great deal to enhance the overall effect.

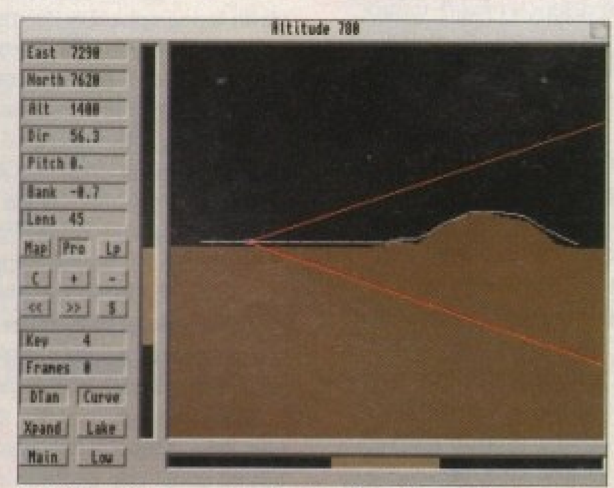
It's here where the aforementioned S button really comes into its own. Like both the map and main screen, the animation controls are on hand allowing you to scroll through the existing keys editing the pitch and altitude as required.



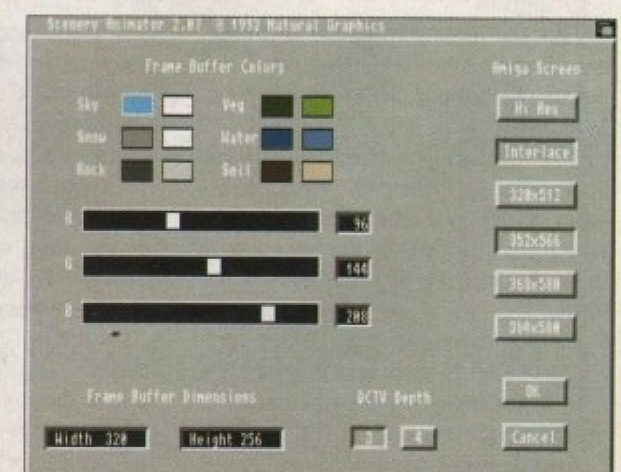
The Scenery Animator main screen with the essential preview window



A birds-eye view of your virtual valley just itching for animation



Dull but useful, Scenery Animator's profile window at its most exciting



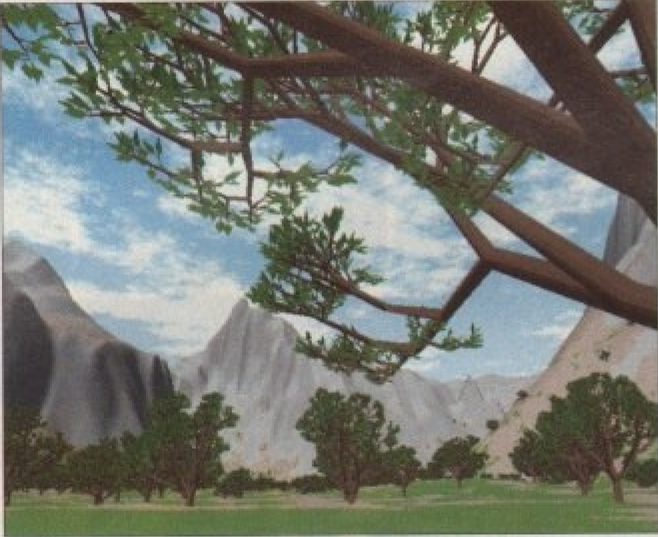
Alas, only a limited number of Amiga screen options...

overall height of the present landscape by simply increasing or reducing the V E factor.

This doesn't actual affect the DEM file but does produce either an extruded or compressed image when generated.

For the more advanced user there's also an option to adjust the offset of landscapes which are to be appended but don't originate from the Natural Graphics library – Vista Pro files are a prime example.

Alas, due to the constrictions of the Amiga's standard palette only three of the four ground features can be applied simultaneously within standard IFF output, while the program's 24-bit alternatives can all display the full complement of four.



No matter how particular you are the output is pretty tough to beat



A cheap and quick holiday courtesy of an instant lake

Turn up the lights

Next up come the Light settings, which can be adjusted manually or via the mouse. While not a perfect representation, the preview instantly reflects any changes by updating the window with fresh shading where appropriate.

Although a simple touch, it's nevertheless very useful when trying to avoid constant re-renders simply because the feel isn't quite right.

The next duet add the water and sky elements to the image with the first of the two allowing the addition of a default sea level, either with or without waves or ocean parameters.

Alongside come the very impressive Sky settings which allow cloud altitude, density and blending to be defined but perhaps most important of all, animation.

For example, an entire stop-frame style anim could be produced by simply plonking the camera in a pleasant spot, defining a number of frames and then animating the clouds floating gently by.

Below these gadgets above await the Fractal and Tree settings with the first option allowing up to 65,000 seeds to choose from when rendering a random fractal landscape. This can then be offset in any direction for appending to others.

Although a small requester, the Tree option hides perhaps one of the most impressive aspects of the package. User definable settings allow you to specify default levels for the top and bottom of the tree-line, plus its relative density and make-up – whether that be oaks, redwoods or perhaps a mixture of the two.

Next up come the Screen controls which let you alter the palette, resolution and bitplanes. From this screen one of the few irritating aspects of the program appear in the form of the very limited number of screen modes – at least for standard Amiga graphics – which means you're limited to full screen images only, and to make matters worse there's no AGA...

Admittedly there are options for hi and lo-res, either with or without interlace and overscan. Nevertheless for serious applications a totally user-definable scaling system would be a big improvement.

> *A fractal fly-through isn't exactly an everyday event*

It's not all bad news, especially for those with quality image processing software and/or a 24-bit display board. From here the program's 24-bit buffer can be defined to the resolution of your choice so literally any size is possible.

In addition, DCTV users also have a boost in the form of both three and four-bitplane rendering modes, both of which take on the chosen Amiga screen resolution.

The next four icons all provide a selection of on/off functions which include a view button for re-displays, an anim button to start multiple frame generation and finally its alter ego, the essential render button for statics.

Better quality

A detail button is the penultimate option which when active adds additional polygons – and in turn detail – to elements in the foreground of the image.

Although the function does dramatically increase rendering times, the improvement in image quality more than makes up for the sacrifice.

After clicking on the final Map option, the familiar main screen disappears to reveal – not surprisingly – the program's map screen which depicts the current landscape via an topographical or overhead view.

From here you can oversee the entire landscape with the present camera position shown by a pair of converging red lines. As you'd expect, the angle of convergence provides a rough graphic guide to the present focal length/zoom of the camera.

Again the mouse comes into its own with clicks on the left button hopping the camera around the landscape while a right click and drag reduces or increases the zoom factor or camera position depending upon subsequent mouse movement.

Mouse control is pretty much all you'll ever need, although fine adjustment can be added to all the positioning and zoom parameters manually when necessary.

To add a final touch of realism, the map screen also offers the chance to add lakes to landscape which spread across the scene according to laws of gravity – fortunately you are given the option to cancel the lake if you suddenly find yourself swamped.

As the grabs show, the output quality of the program is on a par with anything especially concerning cloud and tree generation. Another bonus is that the potential of the program can be exploited without any additional software – something which isn't strictly possible within VistaPro2.

On the downside, the package isn't as flexible as Vista concerning the importation of bitmaps for the creation of designer features and landscapes.

In addition, animation also falls a little short in relation to Vista but admittedly this is mostly due to the MakePath animation add-on.

In short, for the occasional user – and let's face it, a fractal fly-through isn't exactly an everyday event – Scenery Animator is pretty good, if perhaps a little lacking in relation to the Vista/Makepath combination.

For those purely interested in statics, however, it's on a par with anything presently on the market – although before investing it might be worth taking a close look at our VistaPro 3.0 exclusive... AC

Animation options

Although the program's anim controls are shared between the main and map screens, the latter of the two is definitely the best place to experiment, especially when dealing with looping anims.

As you may have already noticed, the software relies on a key-frame system to generate its frames. Although a little daunting at first, the process is really quite simple.

First the required number of frames are added and then with the assistance of the mouse, various "keys" positions can be defined.

The software will the automatically interpolate the flight path of the camera using splines to produce a smooth anim which can be further enhanced by a definable degree of pitch during the turns.

To give that fighter pilot feel the camera can be set to point as if following the nose of the imaginary plane, courtesy of the Dtan and curve options.

Actually building a path is very simple, thanks to the tape deck-style controls which move you through the various keys. When a new key is required the camera is simply placed at the new co-ordinates and the + button clicked to add or alternatively – to delete.

To add user defined changes, the S button allows you to apply and save manual chances to an existing key while the C button will delete an entire unsuccessful sequence.

A final and invaluable option allows the automatic creation of looped anims which smoothly join the first and last key frames – something which is almost impossible manually.

To avoid any errors on your part, the program also offers the option of automatically avoiding collisions or alternatively warn if one is imminent.

For the real Tom Cruise types, a separate low option automatically glues the camera ten metres above the ground – often a rather bumpy ride, but if you have a need for speed it's a must...





The bottom line

Scenery Animator v2.0
Price: $99.95 – UK price yet to be confirmed
Available from: HB Marketing
Tel: 0753 686000

Ease of use = 8
Implementation = 8
Value for money = 8
Overall = 8



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What better way to while away a few hours than with an absorbing game, and what better place to find your games than in the public sector, where you can try before you buy and get a lot of stuff for nothing anyway?

Before we start, though, some good news. If you remember last month's review of Tell the Time from Deja Vu, you'll recall that my only gripe with this excellent education program was the fact that its digital clock told the time in a very non-standard way.

Luckily, the author has re-jigged the program and now it tells the time as we all do, so no more confusion for youngsters who could have got the wrong impression from the previous program.

The new version is available now from Deja Vu, and should you have the older version, send your disk to Mike Austin, 10 Birchgrove, Parc Avenue, Caerphilly CF8 3BG and he'll update it for you. Remember to send him an SAE, though.

After last month's education-dominated section, this time it's leisure ahoy as some of the very best PD games kick off the bargain pages of the magazine

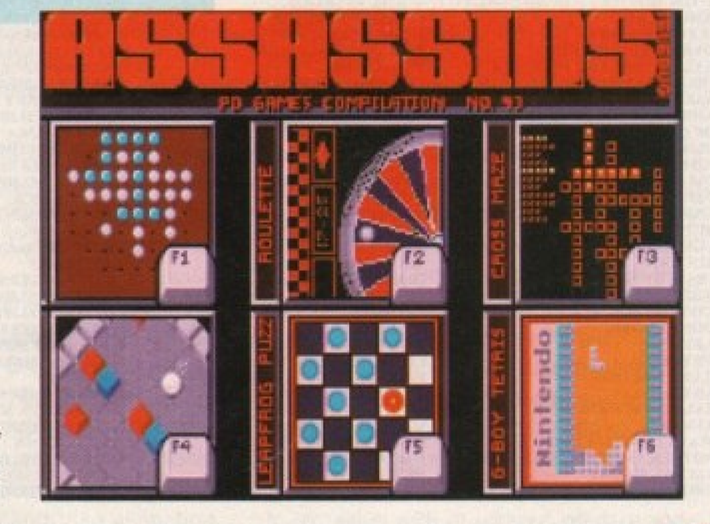


ASI Games disk 43

Wally PD

One of a pretty huge series of games from this group, ASI 43 concentrates upon non-arcade games of the absorbing, puzzle type.

First up is Octathello, which you've probably worked out is a variation on the classic Othello. But what a variation it turns out to be! In Octathello, you can choose a board of up to eight sides and numerous sizes (although normal Othello is also playable by selection of the right parameters) so there are literally hundreds of different boards available to play on.



A great choice of non-arcade games on ASI 43

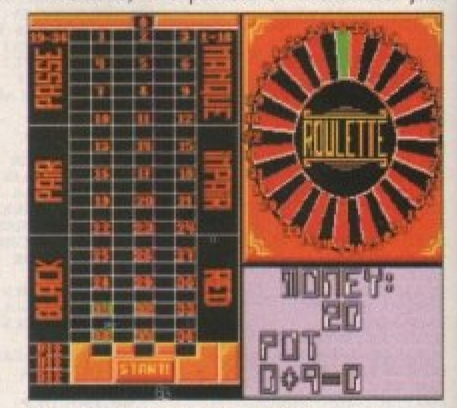
The computer plays a pretty wicked game, and there are constant online help and rules available, so you're never far away from a helping hand.

It's impressively implemented, but a two-player option and the chance to select how well the computer plays would be nice. Still, there are details included on the disk as to how to get a full version for a meagre fee, so complaints aren't justified here. It's absorbing and fun, and better than the PC Windows version, too...

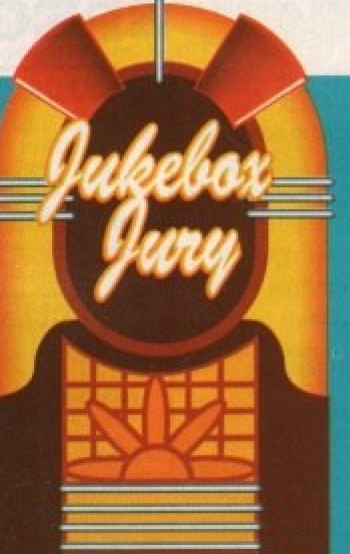
Next up is a computer interpretation of the casino classic Roulette. It's a full and colourful version, and includes a "pot" of money for the player, full gambling control and a proper grid.

There is a red and black roulette wheel in the top right-hand corner of the display, which is where my only real disappointment lies. If the programmers could have animated the wheel properly, including the ball whizzing around, it would have made it far more exciting.

As it is, the panels of the wheel just



A taste of Las Vegas in Roulette



We span the country with this month's selection of music disks, from the highlands of Scotland to Manchester to the beautiful South.

Starting in the north, however, and Bagpipe Frenzy (Highland PD). At first glance these five tunes seem like the perfect nightmare, but they're actually better than good – they're brilliant.

A lot of care has been taken over this, and it shows. The authors advise connection of your Amiga to a hi-fi (always a good idea anyway) and some sensitive tweaking of the bass and treble controls, and they're not far wrong when they say that it's hard to tell the difference between Amiga bagpipes and the real things.

The quality of the tunes is furthered by the fact that they authors have bothered to sample and use the all-important grace notes – tiny frills which individualise playing and add greatly to the feel of naturalness often lacking in computer music.

The tunes are also written by a genuine piper, and frankly need to be heard to be believed.

If all of this isn't enough. If you send them some sheet music and details of your Amiga setup, they'll actually slap it all down onto disk for you. The jury vote an awesome "hit" for this one.

Not quite so accomplished, I'm afraid, is the Prodigy Remix from Adam Smith (no, not the raving capitalist...). This disk takes bits from all over the rather wonderful Prodigy Experience LP and mixes them without any regard for beat-matching, volume or, it would seem, anything!

It's as if a CD player has gone a bit haywire and is playing few-second chunks of the CD version willy-nilly. Call me cold and calculating, but I'm bound to ask who got a sampler for Christmas, then? There are no graphics at all, and the only thing this disk shines for is, unfortunately, its enthusiasm. A regretful "miss", I'm afraid.

Better by far is the enigmatically-titled Friends of Paula Vol II (Chris Wright) which, apart from being extremely well presented, contains five OctaMED-created tunes which shine for the originality of their arrangements and production rather than for stunningly original sounds.

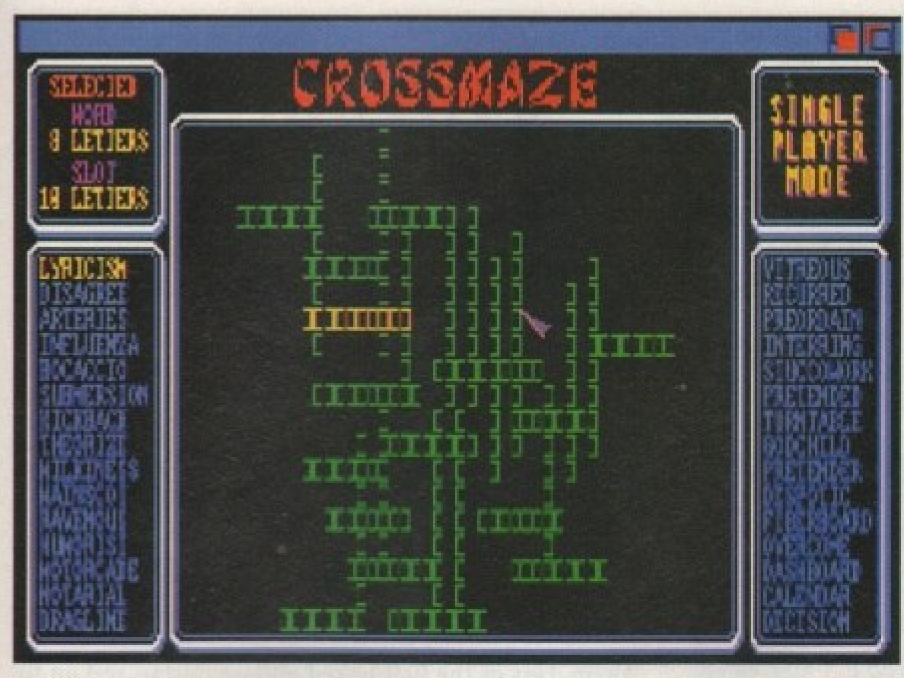
A lot of the stuff has a loose New Order feel to it, and there's no denying that on first listen these tunes are very similar to a lot of other stuff that's knocking around, but it's the quality – especially on pieces like the plaintive Moscow with its weird effects, and the upfront This Must Be Heaven – that separates this disk from the crowd.

Certainly none of these tunes would look out of place accompanying any game, which must be the ultimate compliment. An emphatic "Hit"!

I want your music disks, so in the famed words of dance divas C & C Music Factory, "keep it comin'"!



Friends of Paula – a great music disk from Manchester



Nirvana for word puzzlers with Crossmaze

flash slower and slower in a clockwise direction until finally one is left highlighted. Still, it doesn't detract from the playing, just dulls the fun a little. A good version.

Crossmaze is the next game, and opens rather disconcertingly on a blank screen. A bit of judicious poking around, though, and you discover some menus hidden at the top.

Basically, Crossmaze is one of those crossword-type puzzlers where you are given an assortment of words (rather than clues) and a grid you have to fit them all in.



The bizarre contents of the Hailing Frequencies magazine

You can initialise unique games, load and save games you're already in the middle of, and you can even print out your puzzle! There is a very impressive full help facility, which can start you off, show you the finished puzzle (tut, tut) and various other serious to not-so-serious cheats.

Add in a two-player option and the ability to time yourself, and you've got every puzzler's dream – a challenging word puzzle where you don't have to wait until next time for the answer if you get really stuck.

The other games on the disk did not want to load on my machine – perhaps they're not Plus compatible? – but they are Gameboy Tetris, Leapfrog (previously reviewed) and Interlock.

Even so, this is a games compilation which would prove more than enough for any rainy day. Recommended.

Hailing Frequencies

Jason P Dunning

Stardated February 1993, it soon becomes clear that this is a disk magazine dedicated to that much-maligned group of social outcast, the Star Trek fans, or Trekkies.

As well as an editorial section and some bizarre adverts (fancy a tailor-made Star Trek uniform? Look no further than this magazine for where to get one!) there are interviews, "conceptual maps", complete listings and descriptions of the plots of every Star Trek episode, and many other things sci-fi generally and Star Trek specifically.

The magazine does contain a few "normal" bits too, such as a couple of game and "serious" reviews – there are even PD reviews (watch it, lads!). However, on selecting PD reviews you're faced with the message "Not written yet". A familiar cry...

It's a well-produced and attractive magazine, although a few juicy pictures wouldn't have gone amiss, and for the sheer enthusiasm which must have gone into this mag I'll praise it indeed. Ahead at Warp Factor 9 to...

Greenies

Deja Vu – L/126

Climbing a dark tower to wreak revenge on a sorcerer – as one is wont to do in this type of game – you find that things start to go terribly wrong.

First, he manages to take your weapon from you as if it never really existed, and then he turns you and your two fellow players, Incredible Hulk-style, into big green undesirables – Greenies!

As the sorcerer laughs, sounding suspiciously like Ming's friend from the end of Flash Gordon, you realise what lies ahead of you. As one of three players – an ogre, a goblin and a troll – you have to enter a huge and foreboding maze, only leaving when the other two players are dead.

Each player has his good or bad points. For instance, the ogre is by far the stronger of the three, but he's also the slowest and clumsiest.

Various attributes within the maze can be used by various characters, and there are grenades, mines, bombs and baseball bats, all put there to help you to pop off your maze mates.

Add speed, healing and invisibility potions and a toilet should you "soil your loincloths" as the program puts it, and you have the basics of a top quality, three-player maze game.

Each player has a window of his/her own, which shows the view from your characters' eyes. All you have to do is seek out the others before they find you and, erm, kill them.



Everything's gone green

Full of humour, atmosphere and fun, this is a great Amos game and one which deserves to do well.

Superprix

NBS

This game is up-front from the start. A good, old-fashioned race around the track it says, and that's what it is. Viewed from above, and with the familiar small cars, you have to race against another player or the computer, in a clockwise direction, around a track.

It's one of those games where pushing the joystick up always accelerates your car, no matter which way you're facing. It's the same principle as the control sets which come with radio-controlled cars, and is easy to get used to.

Nice touches include the ability to enter your players' names, and a growly sub-bass embedded in the music which frankly disturbed me. Good stuff.



Superprix could drive you round the bend

Writers' Directory

Immediate Arts

Compiled by Glaswegian writer James Morrison, this is a catalogue of small and independent magazine and book publishers. It is intended for writers, music journalists, illustrators, graphic artists and photographers who are eager to find outlets for their work.

Among the host of magazines and book publishers covered I can guarantee that you won't have heard of a lot of them. All you do is select the category you're interested in – ie Music – and up pop a whole list of addresses and salient information regarding each publication.

Sections include such things as comics, poetry, films and videos, and there is also useful information littered throughout, such as the warning to be wary of Vanity publishers, who are out to make a quick buck from naive writers.

Also available in book form, this is a highly useful and readable directory for anyone with a creative bent and nowhere to release their pent-up artistic urges!

OctaMED Pro v4

Seasoft Computing have asked me to point out that, contrary to what was printed two months ago in the PD column, they are sub-licensed by Amiganuts United to distribute the above-named version of OctaMED.

Tower Hall

Deja Vu – L/128

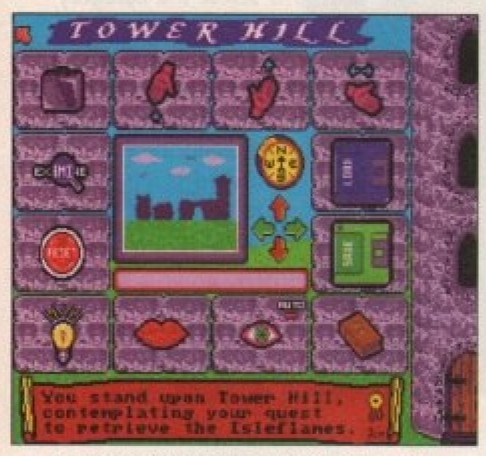
Opening with an atmospheric if simple picture of Tower Hill on a dark, thundery night, this graphic adventure is simply but colourfully presented and packed with atmosphere.

Totally mouse-driven, the pictures are good, if a little small, and the words add enough without being too waffly.

There are all the usual puzzles and commands, people to meet, locations to discover and the like, and even when the game has to load a location from disk, you're hardly kept waiting at all. The atmosphere created was good enough to persuade me to grab a pen and paper and get mapping!

At one point I started wondering whether there might actually be a place called Tower Hill, because the program had started going on about the fact that I was in Snowdonia National Park and that the A4006 was twisting away into the distance!

Steals some of the romance for me, that, but there you go. This one's definitely worth checking out.



Graphic adventuring aplenty in Tower Hill

Got any good PD?

If you're a library, a programmer, a dosser – I care not, for I judge people purely by the quality of the PD they send me. So why not get those Jiffy bags out, get those drives a-copying and lob the lot in the post to me, Phil Morse, at:

PD Submissions
Amiga Computing
Europa House
Adlington Park
Macclesfield
SK10 4NP

Particularly in demand at the moment (and so more likely to be reviewed) are music demos, good games and original applications, so if you've any of these you wish to publicise, you know where to send 'em. Remember, the world is listening...

Slideshows and demos dominate this month's "sit back and watch" column. First is a highly colourful disk called Comic Arts Vol II from NBS, which contains several examples of the comic-oriented artwork of one Jason Newington.

Starring Captain America, the Fantastic Four ("old but tough") and that old perennial Spiderman, these pictures are all of an extremely high standard. Thanos and Spiderman is my favourite, which shows old web fingers in a right pickle, make no mistake!

It's all accompanied by a tune which stars from where Technotronic's Pump up the Jam finished off, and is an impressive disk.



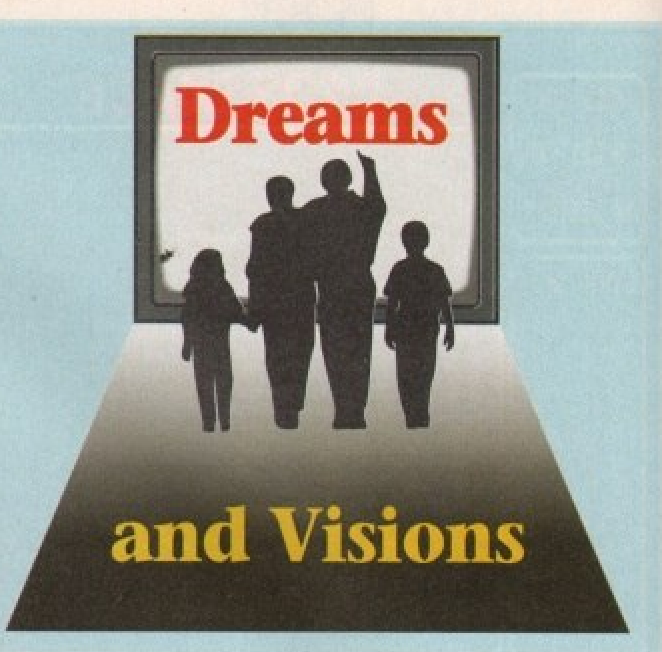
Captain America looking extremely heroic

Not as impressive but definitely weird is F1 Girls, also from NBS. This features cartoons showing a number of varyingly-clad (but never indecent) women at various places around a race course, draped across Formula One cars and their drivers and in all kinds of strange poses and places.

Apart from a love of these girls and a penchant for the sponsorship of Camel (the brand appears on cars, backgrounds and clothing all the way through) I simply can't see a reason for this bizarre disk's existence. Still, why are any of us here?...



What is the reason for F1 Girls' existence?



Ahem, Less of the half-baked philosophising and on to Lethal Exit from Wack PD. This demo starts with an unnerving oscilloscope-style heartbeat monitor before moving on to some seriously mind-blowing, and quite original in places, graphics.

There are not enough vectors to have you reaching for the double Amigas and Control key, and although it is an old school-style demo, we are mercifully denied juvenile credits across the bottom of the screen all the way through.

A good place to see some graphical effects which I can guarantee you won't have set eyes on before.



An impressive aerray of special effects in Lethal Exit

Finally we have HMTV Home Security, a "humorous" demo loosely based around how to ensure your home doesn't get robbed. After the Hit Man TV logo (which looks, no doubt deliberately, very similar to the DCTV logo) the demo begins, accompanied by some lovely Flamenco guitar music which frankly is its best part.

Still, if you like extremely elementary pictures of people on wheelchairs being blown sky-high and spoof Remington adverts where the razor does indeed shave as close as a blade (a very big blade...) then you'll like this.

"Better than nothing, but only just," the program self-depreciatingly jokes near the beginning. It isn't lying.

As always, if you think you can do better than this lot, get those disks in the post. The sky is the limit if you open your mind...

Contacts

Deja Vu – 17 Holinbrook, Beech Hill, Wigan WN6 7SG
Highland PD – 0463 242431
Jason Dunning, 28 Nene Road, Eaton Ford, St Neots PE19 3JY
Chris Wright, 28 Bolton Road, Radcliffe, Manchester M26 0QP
Wack PD – 0642 246548

Take your pick!

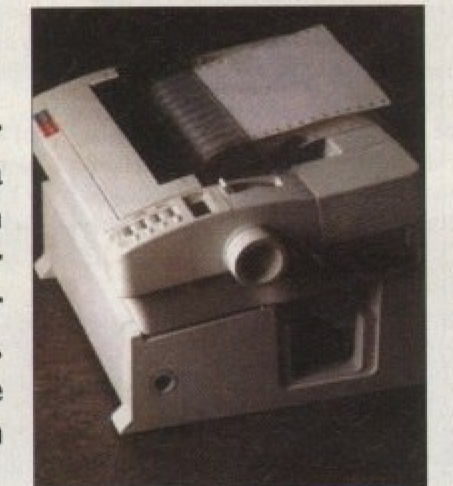
Win a colour printer or a 60Mb hard drive

Yes, you have a choice of prizes with this month's super compo! Amiga Computing and Trilogic offer two – a Citizen Swift 240 colour printer and a 60 Mb 2.5in AT compatible hard drive, suitable for both the A600 and 1200. Both prizes include a full three year warranty, including fitting and insured return carrier. So there'll be two first prize winners this time!



£600 worth of prizes

The powerful Citizen Swift 240 colour printer has superb paper handling, ultra low noise levels as standard with an even lower quiet mode. Excellent colour performance is accompanied by 11 letter quality fonts, two of which are scaleable. The Swift 240C also boasts an easy to use Command Vue IV control panel, which leads you through the auto set facility.



This 60Mb hard drive has an average seek time of less than 16ms, standby and sleep modes for battery use, and features CacheFlow™ – multi-segmented cacheing system, giving overall superior performance and reliability



HOW TO ENTER

You can enter by phone as many times as you wish. All you have to do is answer the two simple questions below. Please try to avoid background noise. The winner will be drawn from all the correct entries received.

How many letter fonts does the Citizen Swift 240C printer offer?
a 6 b 9 c 11

How many megabytes does the hard drive pack in?
a 20 b 60 c 50

You will be asked to leave your answers together with your name and full postal address, including your postcode. Please speak clearly, spelling out any difficult words.

Calls are charged at 36p per minute cheap rate and 48p per minute at all other times

The printer or hard drive could be yours for the cost of a quick phone call which should cost you under £1* at cheap rate.

This applies if background noise does not necessitate the repetition of answers

☎ 0891 543300 for the printer
☎ 0891 543301 for the hard drive

MARCH WINNERS

The ten winners of *Amiga Computing's* March Final Copy II competition were R Cox of Norwich, A Saunders of Surrey, J Sweet of Worcestershire, Peter Furmore of Seven Oaks, Peter Coult of Harts, Mr Jones of the Isle of Wight, J W Bossons of Newcastle-under-Lyne, V Welsh of Longcroft, A Sales of Sheffield and O Cropley of Notts.


THAT'S MY BOY!
GAMER
Son of Chuck is here!
REVIEWS...
Plus
LETHAL XCESS • COMBAT AIR PATROL • SLEEPWALKER
BODY BLOWS • LIONHEART
TRANSARCTICA • PRIME MOVER • CHUCK ROCK 2
HIRED GUNS and more
ALSO... FLASHBACK, JAMES POND 3, ANCIENT ART, BEAST BALL,
BLAST FROM THE PAST and the concluding part to WEEN Cheat Mode plus all the latest Amiga news

Gamer GLOBE

Zool in ant-like antics

Zool has spoken out regarding rumours and speculation within the computer games press that he is, in fact, an ant.

On a recent visit from the Nth Dimension to discuss progress on his brand new game, Zool took the opportunity to demonstrate to journalists the difference between an alien and an ant. With a breathtaking display of kicks and punches and the aid of a "stunt ant", Zool soon proved his point.

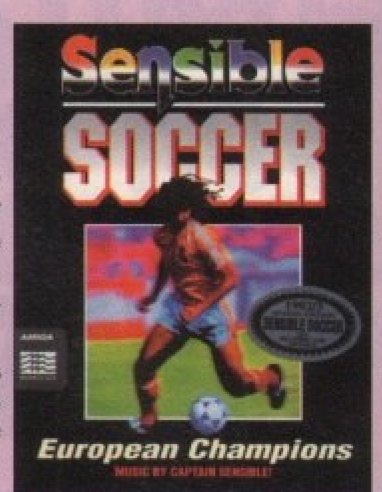
While on his visit to Earth Zool was prepared to share some news on Zool 2. I quote: "The Nth Dimension, the power and source of all imagination, is in great danger. When I return, I will introduce you to my new apprentice.

"She will help me in the struggle to defeat Krool and his powerful ally Mental Block."

And with a flash of bright light Zool was gone... ahem, well there you have most definitely the weirdest press release ever. That's all we know about Zool 2, but it could well have some likeness to Sonic 2. More news as we have it.



Sensible say no to Europe



The biggest sequel this year will hit your local game stores at Christmas. Sensible Soccer 2 is going to render all other soccer games null and void, says Sensible Software supremo Chris Yates. The new game is going to have a player/manager angle rather like the now dated Player Manager by Anco.

Its predecessor had a very European feel and this is going to be changed for a more global feel. Expect teams from Brazil, Argentina and the CIS to feature. Details are very scarce at the moment, but Gamer will keep you posted on the developments.

Nominations are in for top games awards

The nominations are now in for the most prestigious video and computer games awards ever. The winners will be announced on the first night of the ECTS, Sunday 4 April.

Over 70 top magazines from Europe, the US and the Far East including Gamer have all cast their votes. Hundreds of thousands of games players in France, Germany, Spain and Italy have all voted for their Game of the Year. In the UK the consumer's choice will be decided by viewers of BBC children's show Going Live!

Amiga nominees include Formula One Grand Prix for Best Simulation, Going Live! Viewers' Award, Best Computer Game and Overall Game of the Year. Pushover and Wizkid from Ocean are up for Most Original Game. US Gold's classic adventure game Monkey Island 2 is nominated for six awards. It's a hot favourite for Overall Game of the Year.

Scrapping it out with Monkey Island 2 for Best RPG/Adventure is Eye of the Beholder and Indiana Jones and the Fate of Atlantis. Who will win that category is anyone's guess.

Gremlin's amazing platform smash Zool is only up for the best action/arcade game and surprisingly hasn't been nominated for Overall Game of the Year. Sensible Software not only have Wizkid for an award, but their football classic Sensible Soccer is also nominated for Best Computer Game, Going Live! Viewers' Award and Overall Game of the Year. The only other Amiga nominee is Putty by System 3, nominated for Most Original Game. The hardware award firmly belongs to Commodore with the Amiga 600, 1200 and 4000 and up against the Super Nintendo.

Software publisher of the year is a fight between Electronic Arts, Konami, Microprose, US Gold and Virgin Games.

As the ECTS is a trade show, you won't be able to get in, but don't worry because your trusted friend Gamer will be there to get you all the hot information on what's going to happen in the computer world. Expect a full report from the show in a couple of months' time.

Happy Daze are here again!

Daze, the company behind hit game Transarctica, have just got themselves a brand new budget label called Games Worth Playing. The first three titles are Storm Master, Crystals of Arborea and Metal Mutant with one or two titles appearing per month after that.

Storm Master, priced at £12.99, is a strategy/adventure game which was critically acclaimed on its original full price release. Crystals of Arborea is an RPG adventure and the prequel to Ishar: Legend of the Fortress, and will cost £9.99.

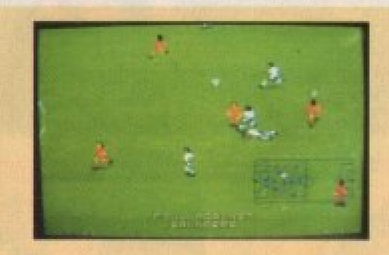
Metal Mutant is an arcade game which features beat-'em-up action with surprisingly enough a metal mutant in it and that too will cost £9.99.

Storm Master, Crystals of Arborea and Metal Mutant will be released in April.









Ocean hit the Premier League

Ocean have just released details of their latest game. F A Premier League Football will be available in the next couple of months. Ocean aren't usually know for their prowess in the sport games department – their forte is normally a platformer based on a film.

Whether it'll be any good is anyone's guess, but you never know, it might even be better than Sensible Soccer – well maybe.

The game features twin views, overhead like Kick Off and Grandstand like Emlyn Hughes' International Soccer. It also features spectacular animated players and has all 22 Premier League clubs and their strips. Review next month.

Attic attack!

US Gold is to exclusively market and distribute several different software products by German company Attic Software throughout the United Kingdom, France, Italy and Scandinavia.

The first title, Blade of Destiny, is based on Germany's successful role-playing series Das Schwarz Auge. The game is to be known in Britain as Realms of Arkania.

It is being developed in co-operation with the original authors, Fantasy Productions.

Since Das Schwarz Auge was first released in 1984, more than a dozen board games have been published. Earlier this year agreements were made allowing Waddingtons and Mattel to publish a board game under the title of Dark World.

US Gold's chairman Geoff Brown commented: "The success of the 'Das Schwarz Auge' series is impressive by anyone's standards.

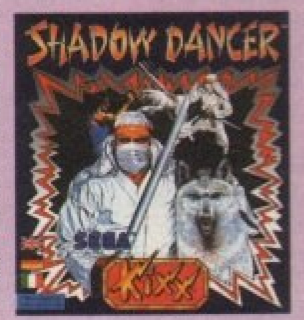
"The Realms of Arkania series represents a very exciting addition to our range, we're very much looking forward to working with Attic and bringing them to the forefront of the European Software industry."

The computer series has been kept as faithful as possible to the board game and only minor alterations have been made where the computer environment demanded so. The game will be available in the first quarter of 1993.



Getting your Kixx

Kixx have just announced their releases for the coming months. The brand new budgets which should be on your shelves as we speak are Fire and Brimstone, International Soccer Challenge, Shadow Dancer and Robocod.



Fire and Brimstone is a scrolling platform hack-'em-up. Shadow Dancer is a scrolling platform ninja slice-'em-up. International Soccer Challenge is a 3D scrolling footy, err score goals-'em-up. Last, but not least is Robocod, a multi-directional scrolling platform fish-'em-up.

All games will retail for the grand price of £9.99.

What's happening? Where am I?

The answers, in back to front order, are – you are reading Gamer, as ever, and we are having a bit of a change, as we said last month.

These sparkling pages over which you are casting your bright excited eyes are the Gamer Globe (betrayed somewhat by the title, you will find) and replace the old Onword.

All the latest game news will still appear within this magnificent appendage, but what we aim to do too is bring you news of other game-related incidents, such as shows and... ah, other stuff.

Inner Vision becomes Innards, mainly because we just fancied a change, and The Source gets a new look and re-appears as the new On the Drawingboard section – quick, to the point, and more informative to boot!

It seems that many of you particularly like the previews, so we'll be bringing you more of those in the coming months.

The basic structure of the reviews remains, although we have modified the scorebox, most noticeably with the addition of Difficulty and Lastability sections that many of you seem to want.

Difficulty refers to the trickiness of the control method and the type of puzzles or tasks within a game and a score of around seven or eight means that the programmers are spot on.

Lastability is all about completion of the game – the higher the score, the longer it will last – comprendo?

We hope you like it because all in all we are trying to tailor Gamer to suit your wants, so don't let it stop here – keep those letters coming and make us work for a living (for a change – Ed).

INNARDS

REVIEWS-REVIEWS-REVIEWS

REGULARS-REGULARS-REGULARS

Is there someone who really gets up your nose? Someone who's limbs you wouldn't mind separating from their torso, or whose eyes you feel would look much better hanging down their cheeks on thin tendons?

Maybe there's more than one? Invite them round to your place then, and boot up Hired Guns to relieve those tensions.

Everyone has their own style of reviewing a game. Personally, I like to begin with an introduction (like that one up there) and overview, then talk a little about what it has to offer, before giving an opinion as to how well these options are implemented – with references to other products if applicable.

Towards the end of a review I will describe as best I can the graphical and audio quality and discuss its contribution to the game as a whole.

Well sack that! I know there's an old adage that we should save the best till last, but really – why bother? If something stands up and shouts "I'm a very good thing indeed!" at the top of its voice then the world should listen.

In case you're wondering what I'm getting all het up about, it's the sound. Yes – that which usually comes towards the back of a review – the phonetics, the intonation, the diacoustics, the sonorific resonance (can I have my thesaurus back now? – Ed).

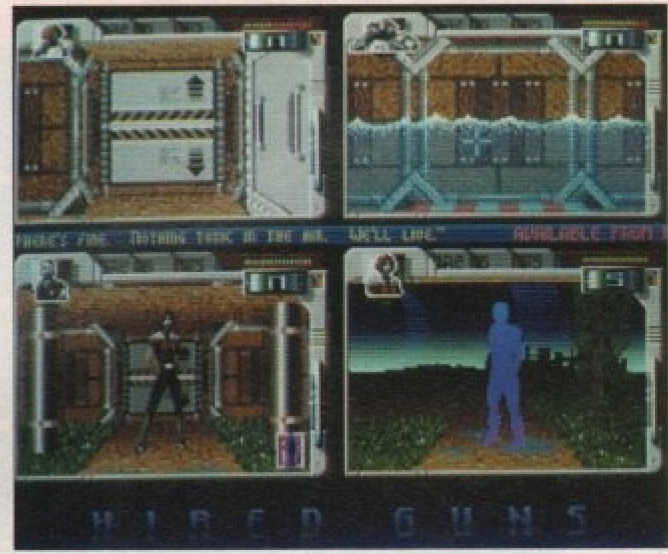
At the outset, and before each level, there are several intro tunes which are by far and away the best tunes I have ever heard in a computer game, or am likely to do for some time I suspect.

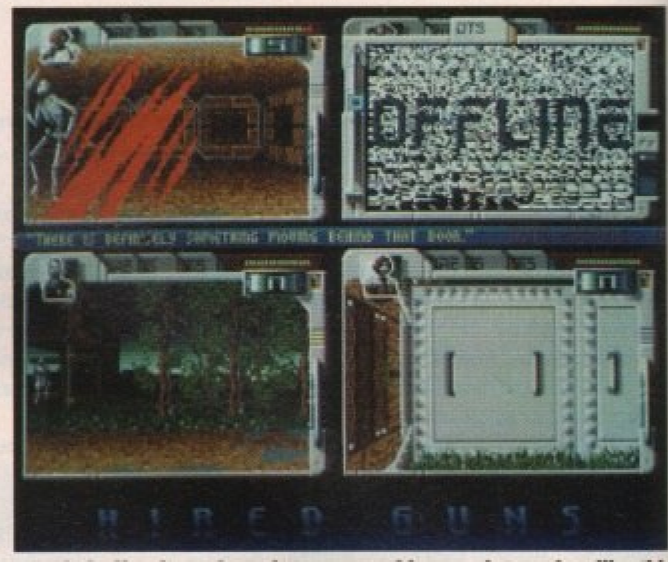
Brian Johnston, brother of HG programmer and designer Scott, has done an absolutely superb job of setting the perfect mood with his fast-moving bassy synthesised music; connect your Amiga to the stereo and annoy the neighbours – it's great! So now you know.

The game then. Well Hired Guns is an adventure at the core, but nothing quite so common as just that. It's a first person perspective 3D adventure, and very kindly caters for up to four players.

Set in 2707 when everyone is watched by Big Brother and work is carried out by robots, there exists a band of merenaries who specialise in bumping people off, taking on any job at the right price.

One such job is to blunder brainlessly into the attractively named town of Graveyard and rescue a number of hostages who unwittingly became imprisoned on their way to Butlins in Skegness.


The 3D is good, but the game just doesn't take advantage of it



Grandad off Only Fools And Horses would appreciate a view like this

HIRED GUNS

Psygnosis leave their Lemmings behind and head on down the adventure path with their old buddies DMA

One, two, three or four players choose their characters from a cast of 12, all sporting different attributes in terms of stamina, fitness, brainpower and the ability to juggle a large variety of smoked cheeses. This done, it's off into the wild blue yonder – or rather, dull brown landscape – in search of hostages.

Of course, it's no coincidence that Graveyard is so named – spooky beasts and skeletons stalk around tooled up to the eyes with all manner of weaponry, just begging to be blown away.

And it's here where the first disappointment occurs. When a nasty – or a friend, for that matter – is shot, all we see are a few red lines slashed across the new corpse that resemble a naughty child's homework more than a death scene.

The sound effects are good though – although spartan, they're realistic, and add a little depth to the lacklustre 3D graphics. The problem is that the screen is divided up into four parts to accomodate the four players, making each individual playing area very small.

Fair enough though – Hired Guns is a rarity in that it caters for this many simultaneous players, but it would have been great if when in one or two-player mode the size of the play area became larger.

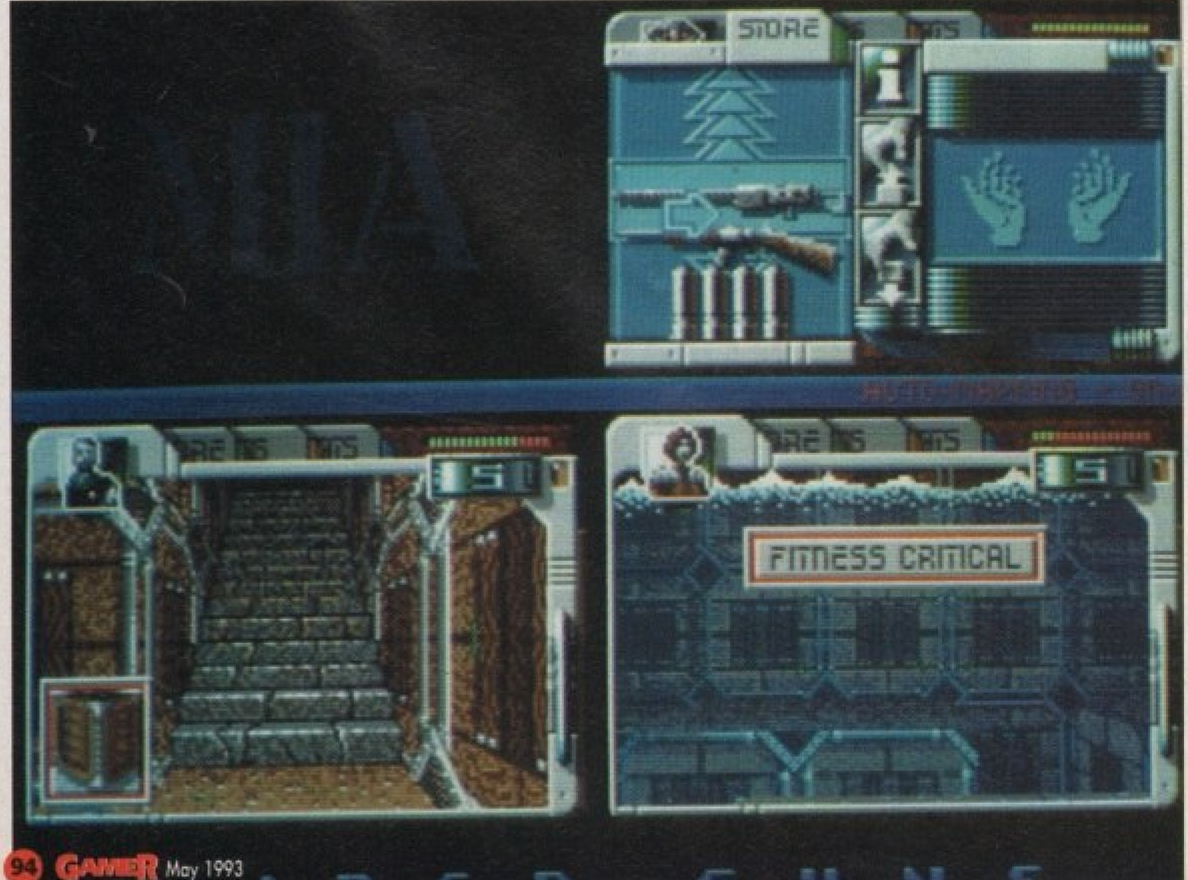
Instead, if only you enter the game, it is you who takes charge of the four characters. They can be linked to follow each other, which makes control easier, but I can't help thinking this part could have been handled better.

Clues to the whereabouts of the hostages can be found scattered throughout, along with extra weapons, medical packs and various ultra-modern aids.

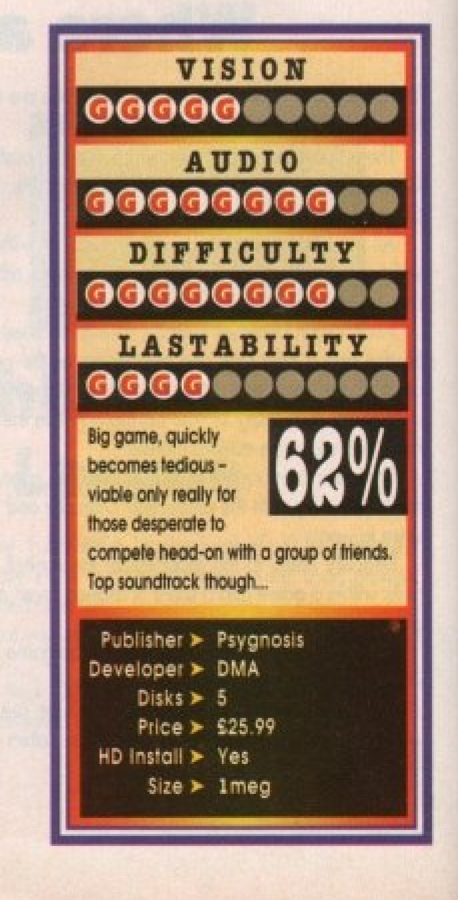
Hired guns can be split into two definitive sections; the campaign part – nearly two million cubic metres of playing area, where a clever strategy and lots (and lots and lots...) of patience is required, and the action part – 20 stand-alone levels that can be treated as individual "quickie" adventure blasts.

It's evident from playing this that a hell of a lot of time and effort has been put into making it one very large game. And indeed, it is large – so large in fact, that despite the individual levels, ultimately the tiny play area, dark graphics and the large gaps between action make it a product lacking in any mass appeal – a game that will become a chore long before completion.

PAUL ROUNDELL



It's no fun wandering around at night with nothing but a big piece of hardware to keep you warm





LIONHEART

Adventure and action all the way in this swashbuckling slash-and-hack-'em-up from Thalion

Lionheart in his spare time likes to run up trees for no apparent reason



Hey look, it's the Krypton Factor. But where's Gordon Burns?

How many times have we, the games buying public, seen products arrive at the shops with amazing graphics and unbelievable sound, only to find that they play like a damp squid? Yep, far too many times for my liking. Psygnosis are normally the culprits – take Shadow of the Beast 1 and 2 as an example.

Now Thalion, the company behind such hits as A320 Airbus, have produced Lionheart, offering amazing graphics and unbelievable sound – but does it have the playability?

Destiny is a funny thing isn't it? Do you believe in being in the right place at the right time? Well, the hero of this platform hack-'em-up most definitely believes in destiny. His name is Valdyn, otherwise know as Lionheart because of his reckless courage and fierceness.

FESTIVITIES

Valdyn might be brave, but that didn't stop him being put in prison for no reason whatsoever. A few days passed and he was taken from his cell and presented to the King who explains that the Showing Festival is on in less than three days.

At said festival the King has to show a holy jewel to his people to prove his right to rule. Of course the jewel has been stolen, and the King wants Valdyn to bring it back before the festival starts. Why Valdyn? Destiny that's why. The name of the jewel is The Lionheart.

Yes, unfortunately it's yet another platform game, but you never know, it could be different. I have to admit the graphics are truly excellent. Your hero is really well animated and drawn, although he does tend to look like a cross between Lion–O out of Thundercats and He–Man (and indeed, Biffa himself. It's the hair – Ed).

The backgrounds are superb and the parallax really gives everything that look of quality – mainly because it is displayed in interlace. This looks really good on a monitor, but could be a bit different on a television set.

In the tunes department there are a whole batch of top high quality Amiga musical ditties, but there isn't much to report on the sound effects front, although what there is is adequate.

Now on to the really important bit, playability. I was quite surprised, because I thought it would be exactly like Shadow of the Beast and suffer really badly. However this is much more playable than Psygnosis' over-rated effort.

There are a few niggles, because the controls don't respond as well as they should. Nevertheless you can't really fault the playability.

Lionheart is fairly addictive, but no great challenge on the easy level. There are two more difficulty settings, but instead of your enemies getting harder to kill, the whole set changes completely, which is is a really good idea because you actually get two games for the price of one.

Lionheart is a great platform hack-'em-up – one of the best of its type. Top marks go to the graphics and music, and thankfully they managed to make it playable. In fact the only reasons I mark it down is that for some reason it slows down in parts and then speeds up really quickly.

Also if you take the graphics and sound away you're left with a fairly bog standard platformer - and some gamers might not be willing to pay for yet another one.

Lionheart is good, but it's not Gamer Gold material. However, this might turn out to be a dark horse and shoot right up to the top of the charts. Then again, we all know how rightly picky some of you are.

So, my verdict – Lionheart is worth it if you've got plenty of money to chuck around. If not, just admire the screenshots and wait for another platform game to come along. You won't have long to wait.

JONATHAN MADDOCK

Ha, drown like the evil toad thingy that you are



A bug in the system is no match for the mighty Lionheart



VISION	10/10
AUDIO	9/10
DIFFICULTY	7/10
LASTABILITY	7/10

85%

Lionheart is jam-packed full of the best graphics and sound I've seen since Project X. It plays much better than Shadow of the Beast, but suffers from control quirks now and again. Graphics and sound apart, you have a bog standard platformer.

Publisher ➤	Thalion
Developer ➤	Thalion
Disks ➤	4
Price ➤	£25.99
HD Install ➤	Yes, 1.5Mb needed
Size ➤	1 meg

Cavemen eh – who'd be one? The hours are long, conditions poor, wages low, and you can't even have a nice hot bath when you return home from slaughtering a Diplodocus for Sunday lunch.

There's no EastEnders, ten pin bowling, cinemas or kebab houses, and the only form of recreational pursuit is to dress your kids up as plants and take bets on how long they'll survive in the Brontasaurus pen.

It was into this cold and hostile world of just a few trillion years ago that Mr and Mrs Chuck and Ophelia Rock brought Chuck Jr – the heir to his father's newly built car manufacturing fortune.

Yes that's right – the formerly gormless master of the belly butt has sharpened up his image since the closing sequences of the original game, and now finds himself as sole proprietor of the world's second largest car manufacturer.

Sounds good, and it is – but not for long, as the inevitable enemy (this time it's Brick Jagger, owner of rival company Datstone) takes it upon himself to make the Rocks' lives a misery by spiriting away Chuck and holding him to ransom for his company.



There's always a way to scrump apples for a resourceful young cave baby



Allegedly the largest ever Amiga sprite – a real headache!

Chuck Rock 2 SON OF CHUCK

Chuck and Ophelia do the wild thang and are blessed with a beautiful, bouncing baby boy

BRILLIANTLY ANIMATED

This is where the game begins, and through a brilliantly animated comic intro we see Chuck bundled away and his faithful son listening intently as the demands are made to Ophelia over the phone.

Without further ado, the pint-sized cavebaby breaks through the constraints of his primitive playpen, picks up his dad's best club and sets off on his rescue mission.

Nothing you have read up to now is likely to have convinced you that Son of Chuck is a radically different and innovative concept – and it's not. As far as platform games go, they don't come with a much more traditional presentation than this; but it is the underlying quality throughout which sets it apart from other Good But Not Great efforts such as Risky Woods, James Pond and Core's own Doodlebug.

Junior isn't a particularly large sprite – I mean, he's a baby, after all – but he's animated perfectly, right down to the goofy toothless grin, and tantrums when all his energy is gone. Three luscious layers of parallax run silky smooth throughout the six main levels; combine this with the stunning colours and detail of the backgrounds and you have a game that really begins to show off the capabilities of the Amiga.

The first level is The Suburbs, and it's everything you'd expect from the team who brought us Chuck Rock, and more besides. It's broken down into three sub-levels, and features many of the items one might expect to find in a Stone Age town. Also included is what Core claim to be the largest sprite ever seen on the Amiga – it's a huge dinosaur, only the feet and lower legs of which are visible, and it has to be avoided as it stomps across the screen.

All the levels are set out in similar way to the first – apart from level two which contains a sole massive slumbering dino whose back you must make your way across in the face of an onslaught of unfriendly neighbours and overgrown insects.

Humour is the main ingredient of the game, and the expressions of many of your chagrined adversaries as they find themselves thumped or barged off-screen almost alone make it worth playing.

Look out too for the small dinosaurs, who when hit suddenly lose their disguises to reveal the slightly dazed dressed up caveman inside. Whereas Chuck Snr used his excessive stomach to fight his way to the captured Ophelia originally, Junior relies on the man-sized club to rescue his dad, which he drags doggedly behind him.

Some of the characters within the game are interactive, in that they will help you overcome certain obstacles. For instance, a long row of spikes on the third level is seemingly insurmountable until you enlist the help of a friendly giant ant who apparently doesn't mind taking a few sharp pokes in the botty.

MIDI-GAMES

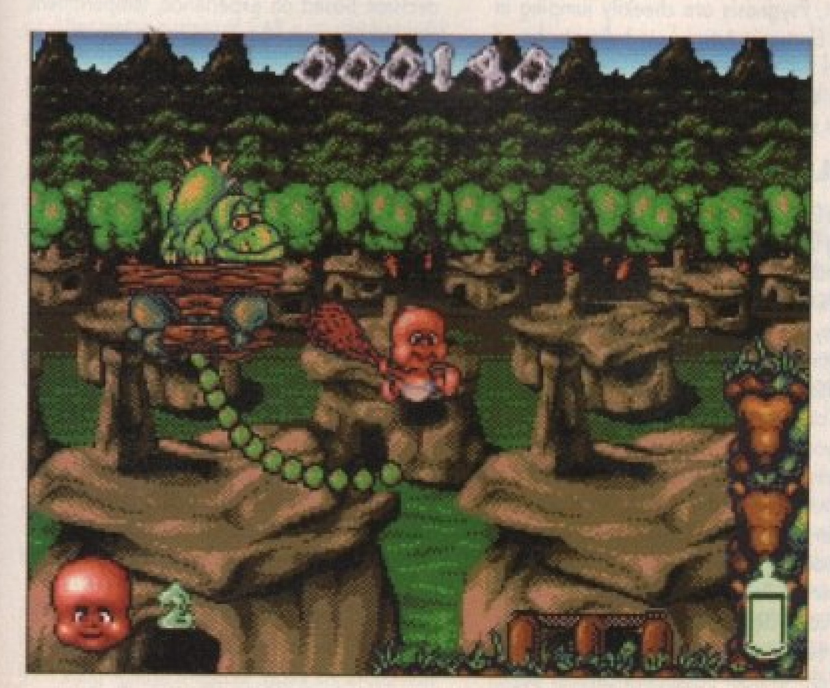
The colour, animation and fluidity of movement on the level guardians is equal to anything Team 17 could offer, and just in case anyone should become fed up with the platform action prematurely, there are four mini-games within the levels to provide few extra chuckles.

It's difficult to fault Son of Chuck in any specific area since Core have given us an excellent sequel to a well liked game. As far as platformers go it has everything you could wish for and I for one won't be content until I've finished it legitimately.

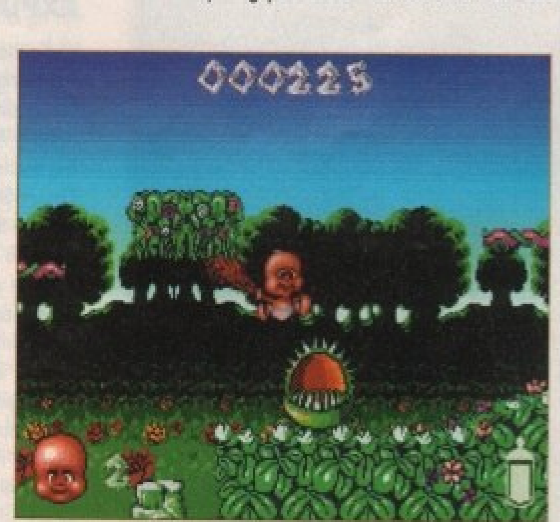
Unfortunately this may be sooner rather than later, because despite the manic nature of the game, those determined enough shouldn't find it too much of a problem to guide Junior safely to the Datstone car plant.

Having said that, there are three difficulty settings to choose from, and the humour, colour, cuteness and fun – not to mention the tunes, some of which are very reasonable – mean that Chuck Junior is the worthy successor to his dad's title as King of the Cavemen.

PAUL ROUNDELL

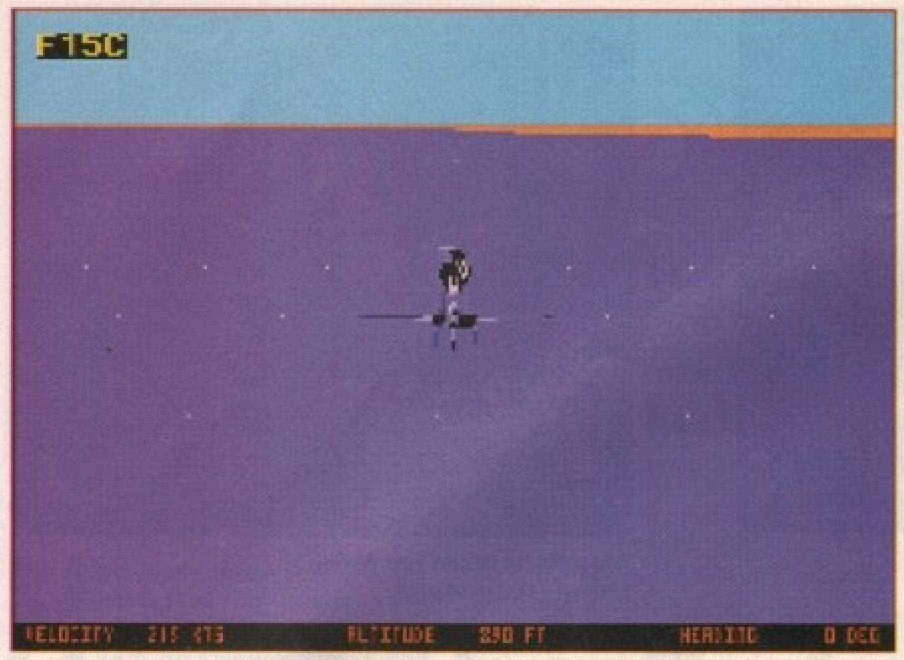


Now I'm the king of the swingers, a caveman V.I.P...



These man-eating plants will spit you onto unreachable platforms – lovely

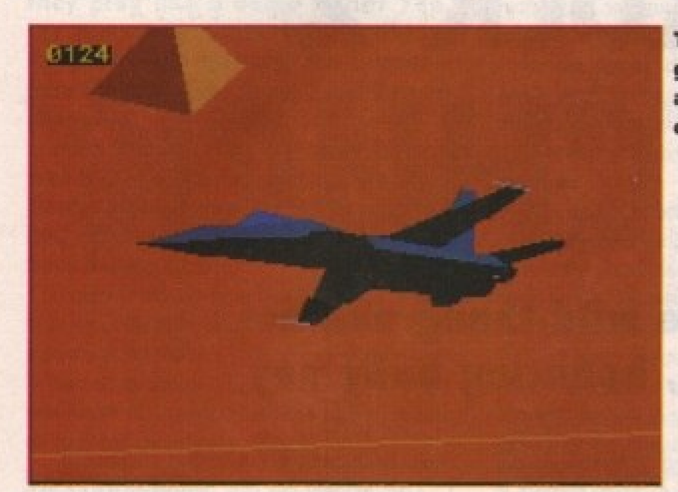




A rear view of your plane is available...



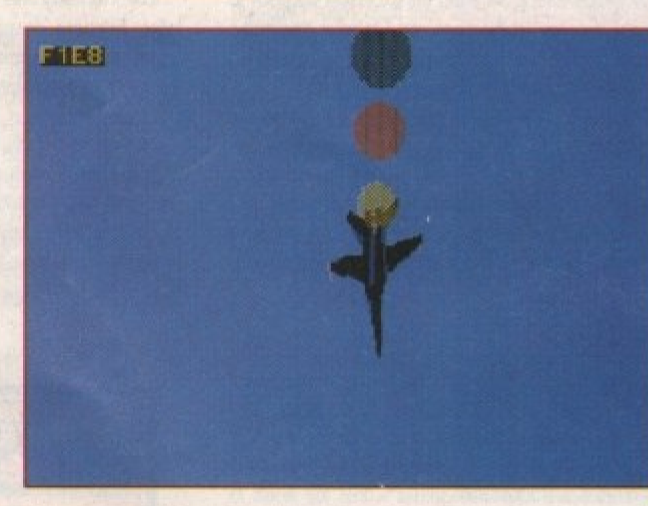
But the inimpressed co-pilot turns away in disgust



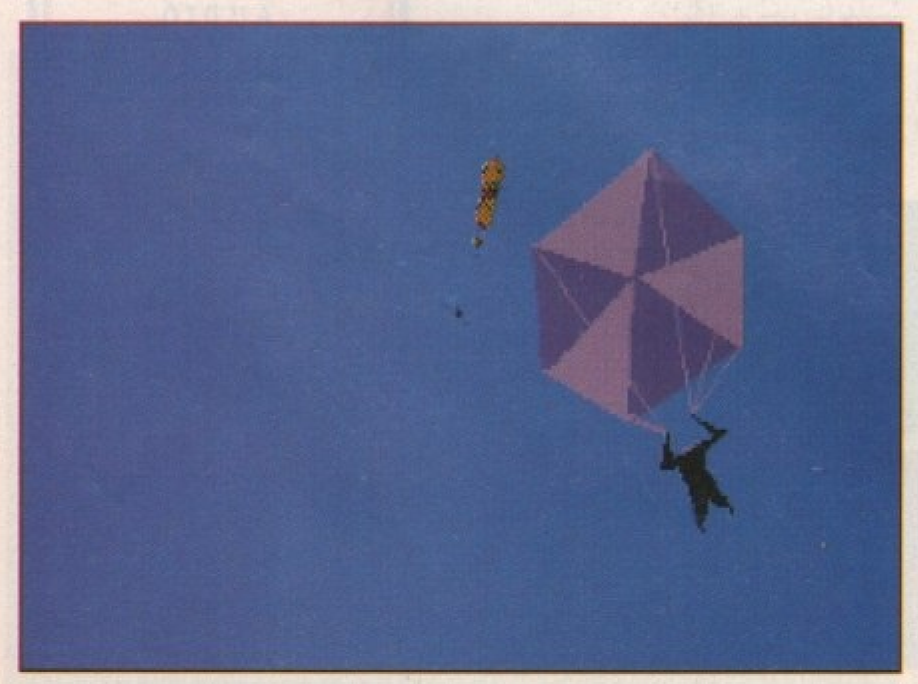
The fly-by option is great – fast, smooth and with realistic effects

COMBAT

There's no let up from Merseyside as Psygnosis take to the skies for a belated bout of Saddam bashing



It's not all "plane" sailing – things do go wrong from time to time



But don't worry – just hit the ejector button and you're free!

From Psygnosis, the people who brought us Lemmings, Beast 3, Bill's Tomato Game and more recently Walker and Prime Mover, comes Combat Air Patrol, yet further proof – if any were needed – that few can match them for consistent quality.

You might have thought it was a bit late to bring out a simulation based on the Gulf War, but then again, we are still getting product relating to the two World Wars, so I guess it isn't too badly timed.

In fact, Psygnosis are cheekily jumping in ahead of Electronic Arts, whose helicopter-based version of the war against Saddam is about to make the leap from console to Amiga. But more about that next month.

EXPULSION OF FORCES

So the Gulf War it is then – the primary objective being the expulsion of Iraqi forces from within the boundaries of Kuwait. The action begins around Autumn 1990, shortly after Saddam and his motley throng overran Kuwait but before Desert Storm got under way. Of course, if you achieve this objective it doesn't have to stop there, and you can carry out as many retaliatory measures as you like.

It seems the programmers were unaware of British involvement in the conflict, since you take part of an American stationed on the battleship USS Theodore Roosevelt.

Combat Air Patrol happily follows the trend of several recent flight sims in that it is easy right from the outset to jump into a plane and enjoy a quick flight without consulting several dozen pages-worth of manual beforehand. That's all very well – a very good feature indeed, in fact – but it is the long term challenge of any game of this nature which eventually determines its success – and here CAP doesn't disappoint.

From the menu at the start you are led into the briefing room – a nice picture of several burly men gathered around a projection screen – to select a mission. The one you choose determines whether you will be flying an F14 Tomcat, or ITS bigger but less impressively named brother, the F18 Hornet. This done, it's off to the VideoData machine (he just made that name up – Ed) to choose which pilot you'd like to be, making your decision based on experience, temperament, physical fitness and any aversions to heights or jet engines they may have.

What then – get that bird up in the air? Hell no, we need weapons, and what better place to get some than the handy weapons select screen?

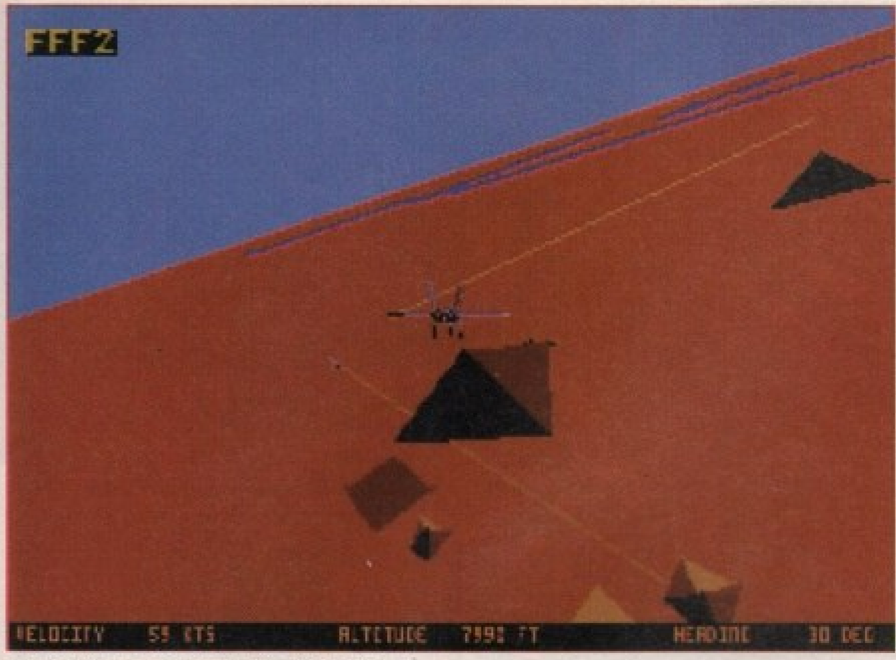
It isn't perhaps surprising that the Yanks began to take out British troops in the Gulf when you take a look at these – every kind of armament any intrepid pilot could ever need, and far too many to ever run short.

The Tomcats are limited to air-to-air missiles, ranging from close range cannon to long range missiles, while the Hornets can carry the deadly accurate (it says here) AGM-62 Walleye air-to-ground glide bombs.

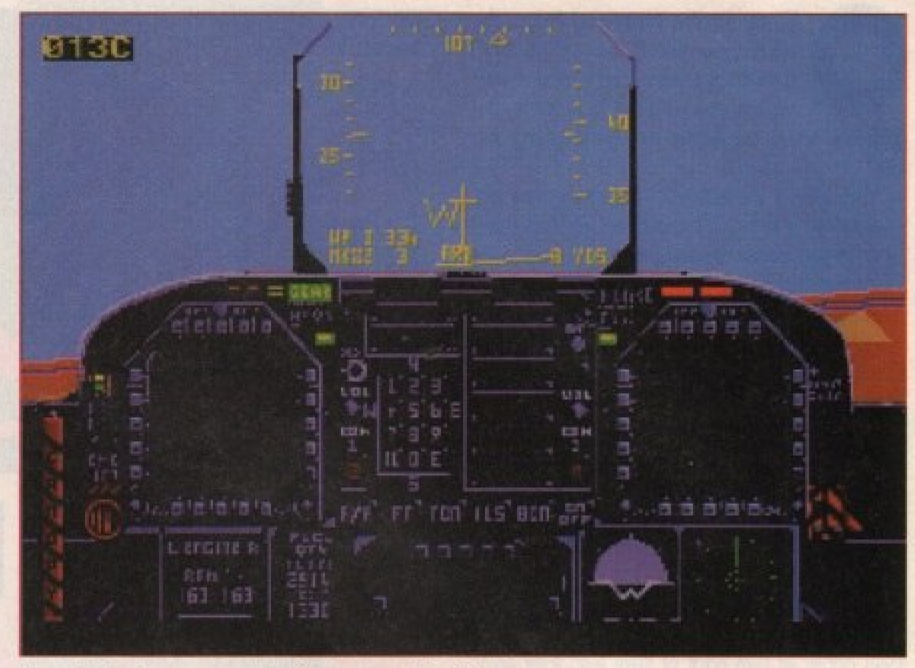
With weapons attached it's time to take to the skies and kick some proverbial bottom. Getting your plane airborne couldn't be easier – it's up and away from the flight deck at the touch of just two buttons.

Even if this proves too difficult there is an option to start your mission from a mid air position above the target, though a strange quirk here is that the engines still need to be started, and any

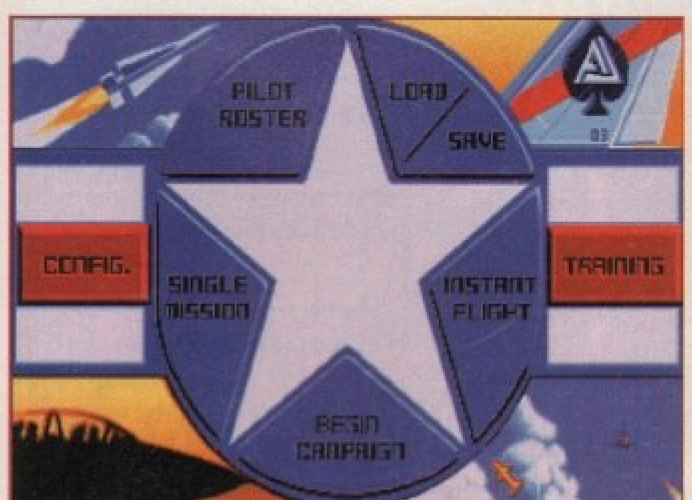




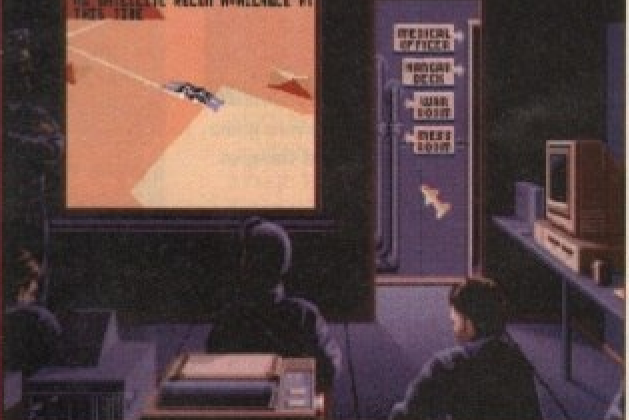
Homing in on an enemy aircraft is difficult...


Especially when you can hardly see over the dials

AIR PATROL



Take an instant flight, embark on a mission, or consult the pilot roster and begin a campaign



After each mission you'll be briefed on your success

VISION	
AUDIO	
DIFFICULTY	
LASTABILITY	

Easy to play, fast and most importantly, very enjoyable – CAP provides excellent action and longevity, and finds itself in the leading pack in the race for best flight sim.

87%

Publisher ➤	Psygnosis
Developer ➤	Ed Scio
Disks ➤	2
Price ➤	£34.99
HD Install ➤	–
Size ➤	1 meg

delay in doing so results in the inevitable dive and crash!

After seeing a demo of CAP a couple of months ago, I was surprised to find that flying the plane in the finished version isn't quite as smooth. Admittedly, there is far more detail, but I was a little disappointed nonetheless.

Not too disappointed though – it's still one of the smoothest sims you'll come across, and the speed and responsiveness of the controls makes the whole affair a pleasure to play (those of you lucky enough to own A1200s will find that the game is very smooth on your machine).

FOLLOW MISSILE

The missiles are easy to use, and after some initial trouble actually finding something to hit, I soon became familiar with using the waypoints, and revelled in choosing the "follow missile" option, where the perspective stays right above the projectile until impact.

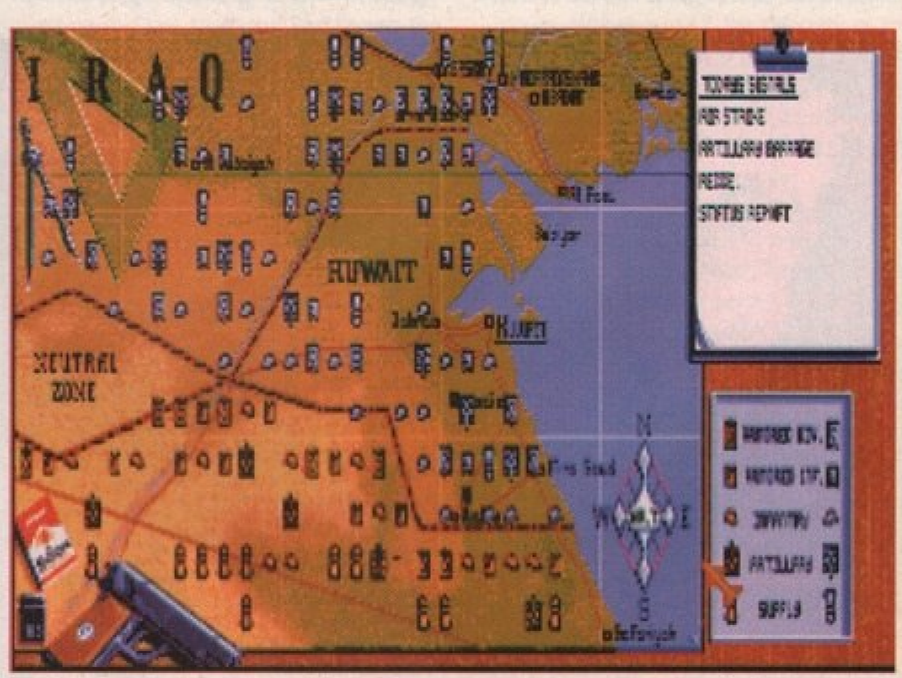
Particularly impressive are the number and flexibility of the external views, not only of the aircraft, but also of any pilots/co-pilots who decide to abandon their mission and return to terra forma by parachute. Fly-bys, overheads, 360 degree external scrolling and even a view of your aircraft from space combine with the strategy element to make gameplay truly excellent.

Where the "extras" really show off though are in the ability to zoom right in on the exterior of the aircraft – it's almost possible to feel the searing heat of the afterburners. Digitised speech via the radio intercom, and an array of illuminated cockpit dials, add to the overall quality.

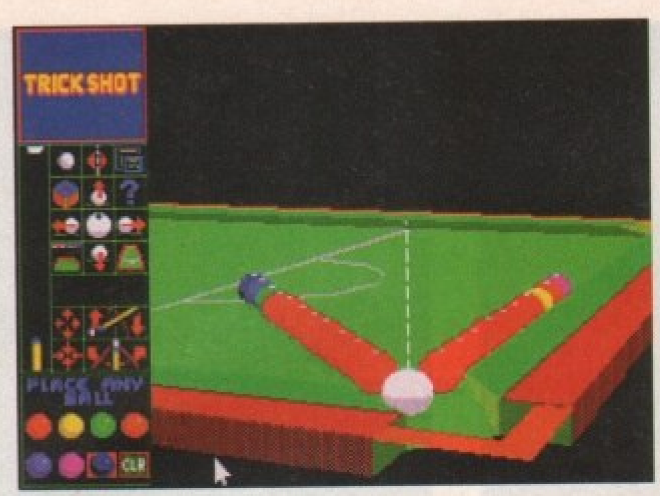
Once familiar with the aircraft controls, you can if you wish take on the role of General, and command the ground troops to further harass the enemy.

Flight sims are becoming increasingly more popular in the home computer market, and in order to achieve success they must combine ease of use, quality of flight and overall enjoyment of gameplay. Combat Air Patrol provides the budding pilot with more than a liberal smattering of all of these, and if justice is served should find itself a hit with experts and novices alike.

PAUL ROUNDELL



Promote yourself to General and command the good ol' ground boys



It's time for a trick shot or two. Where's John Virgo when you need him?



My what a highly amusing ball. What else can you do? Ronnie Corbett impressions! Err, don't call us we'll call you



THE GREATEST

By golly it's Beau Jolly and they've just brought out a new game. It's called Lure of Jimmy White's Dune or something and it's the greatest, err apparently

OK, so you're strapped for cash and you want some really good games. It's far too embarrassing to buy a budget, so what on earth are you going to do?

Well, one of the best ways of getting more for your money is to buy a compilation, which is risky because you almost always get an awful game in your three-pack.

Hmm, well not this time because Beau Jolly have decided to release a package called The Greatest and by golly they are all really great for a change.

Let's start for safety's sake in reverse alphabetical order. First up is Lure of the Temptress. Lure is an interactive adventure game with a difference, the difference being "virtual theatre". I can hear you all now: "What's virtual theatre then, Mr Gamer chap?"

Well, in normal adventure games, the characters tend to appear once and then you'll never see them again. In Lure each of them lead their own lives.

For instance, if a characters says: "I'm going down to the tavern for a swift jar," then you'll find that character there.

This makes Lure one of the most realistic adventures I have ever played. It's cute little ideas like virtual theatre that separate good from average games.

You play the part of Diermont, a rather reluctant hero who has to save his world from dribbling and vicious creatures known as Skorl and discover who the Temptress is.

Another good thing about Lure is that you start the game without knowing exactly what to do. So, as you progress you find out about what's been going on and what your task is.

The graphics are excellent with some wonderful backdrops. It's all is controlled via the good old mouse and is so simple even Terry Christian would be able to play it. Err, then again maybe not.

If you're looking for an adventure game to keep you occupied for a couple of months then look no further than Lure of the Temptress.

WHIRLWIND

Next game up for questioning is Jimmy White's Whirlwind Snooker. Before Jimmy's I personally thought that playing snooker on my computer would be an incredibly sad thing to do.

I mean you might as well go down the pub, have a few beers and challenge your mates at snooker rather than sit at home and be lonely with the mouse as your only friend.

How wrong can someone be! Jimmy White's Whirlwind Snooker is the best snooker game for any computer ever. For starters it's just so realistic that you can almost be there, except you have to chalk up your mouse rather than your cue.



Lure of the Temptress – an adventure game and a half and full of green lizard thingies

It's also the fastest, smoothest snooker game ever, plus all the balls act like proper snooker balls for a change.

If you're a snooker fan or even if you're not then you simply must have Jimmy White's in your games collection. It's a modern day classic. Last up is Dune – an adventure based on the book and film of the same name which incidentally starred Sting (ho ho).

Dune is quite a bit different from Lure of the Temptress which is a good thing because you wouldn't want to put them together in a compilation pack. Unless of course it was called "The Greatest – Three games which are very alike, but all have different names"!

Dune is a blazing hot desert planet which is populated by a tribal race called the Fremen. The planet is the source of the most precious substance in the whole universe, a spice called Melange.

Melange lets space navigators see into the future, so that they can safely find other planets. Also it makes you live longer.

Dune features some of the best graphics I have ever seen and boasts quite a marvellous soundtrack to boot – an entertaining adventure game.

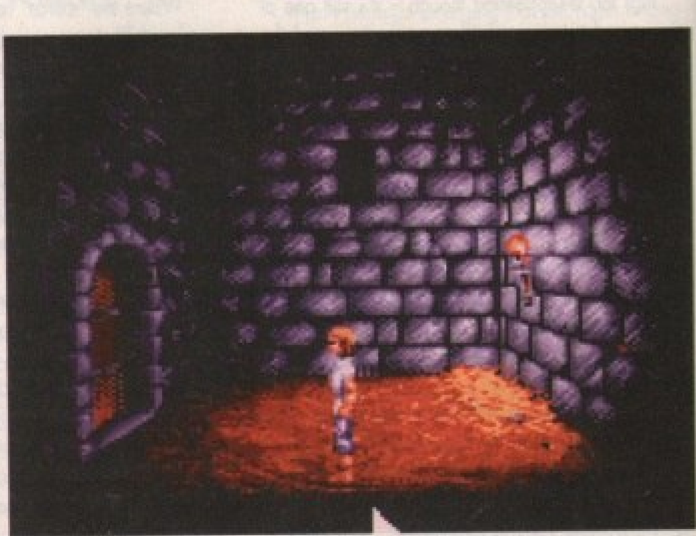
OK, there are your three games and as you can see all of them are classics in their own rights. If you don't own any of them, I strongly suggest you buy this compilation. If you think about it, you're getting each game for a tenner anyway. It's a bargain, guv.

JONATHAN MADDOCK





Dune, a game full of spice. That's the substance, not the stinky aftershave!

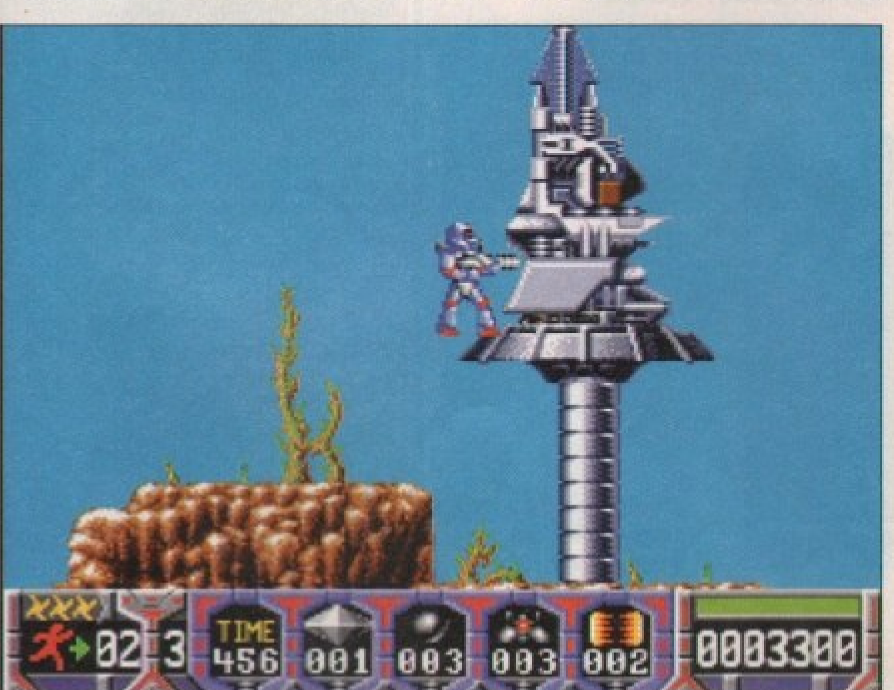


Amazing graphics as you can see and no Sting in sight. At least not yet. Walking on the mooonnn

BLAST from the PAST

Another couple of golden oldies to bring a lump to your throats, perused by Paul





TURRICAN by Rainbow Arts

There are any number of platformers knocking around as we all know; and although fewer in number, shoot-'em-ups aren't exactly a rarity either. One game that manages to combine the best elements of both is Turrican, an eons-old affair from the "where are they now?" German company, Rainbow Arts.

There is some story about evil warlocks, terrible nightmares and a general threat to mankind, but it all pales into insignificance when the action begins and you proceed to make your way through the 13 levels of violentastic platformery.

Looking for all the world like a metallic psyborg-type person (which indeed you are), you have an impressive choice of weapons with which to dispense of your foes.

Mines, forcefields, multi-shot cannons and a huge laser mean that even the saddest of gamesplayers is ensured a least a few minutes of mindless violence before one of the many enemies turns you into dogmeat.

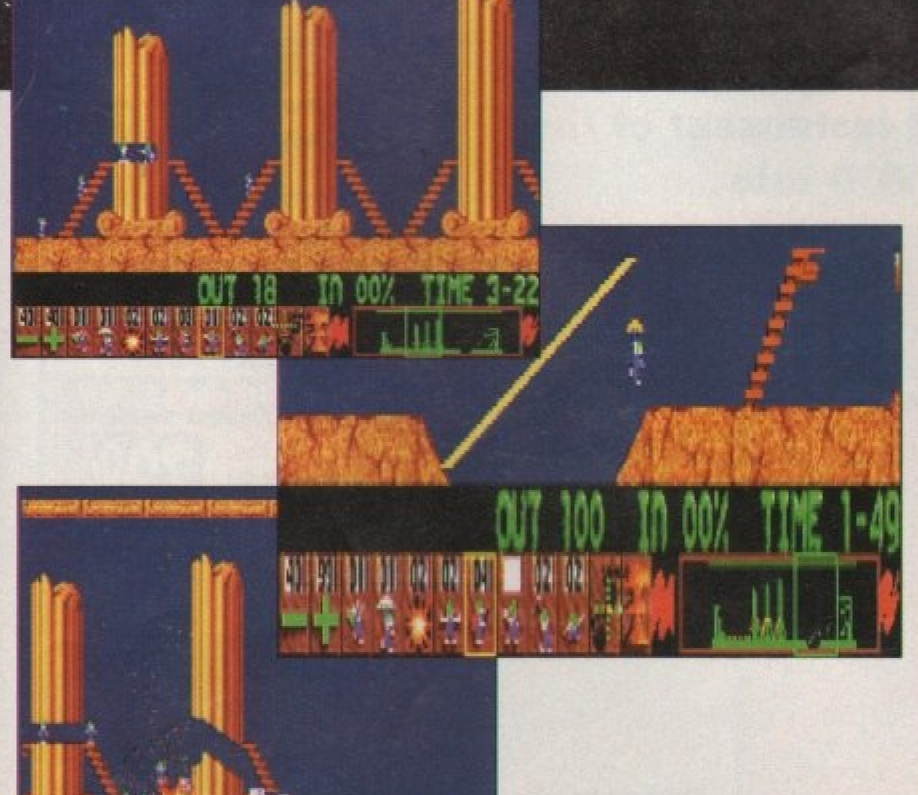
Contemporary games of this ilk offer pretty much the same thing, but a feature that stands out in Turrican is the ease of use: all weapons can be implemented using just the Fire button.

Scrolling throughout is top notch, and considering it's nearing the ripe old age of four, Turrican's animation of the levels and sprites is not to be sniffed at. A different tune accompanies each level, and again they're not half bad.

There is barely a break in the action all the way through, and should you find it too hard going, you can always fall back on the option of turning yourself briefly into an indestructible gyroscope.

Add in power-ups aplenty and the odd secret level and what you have is a truly fun and addictive game that shows only the slightest signs of its pensionable age.

LEMMINGS by Psygnosis



What a strange thing to do – feature a game in Blast from the Past when the sequel is reviewed elsewhere in the mag.

No it isn't – not really. You see, there will be loads of you who played (eat, drank, breathed, slept...) this a couple of years ago, but probably just as many again who have since entered the computer game world and are wondering what all the fuss is about.

Since one idea (money aspect aside) of a sequel is to provide further entertainment for fans of the original, then what better way to point L2 fans in the direction of more fun than by featuring the classic Lems? Makes sense, dunnit?

What's new then? Well nothing – I mean, it's the original isn't it, but that doesn't mean there isn't still plenty of fun to be had.

The Lemmings have just eight skills in this prequel – they can climb, jump, float downwards using an umbrella, explode, block, build and dig across, diagonally or down. Whereas in L2 the difficulty of the levels varies from tribe to tribe, the skill level here can be chosen, ranging from the beginners-only Fun level to the tooth-itching Mayhem, and the 99 levels are divided equally into the four categories.

The chaotic music is here, as are the hilarious sound effects and brilliant animation, as you would expect, and more careful thought needs to be put into many of the more difficult levels due to the "lack" of Lemmings' skills.

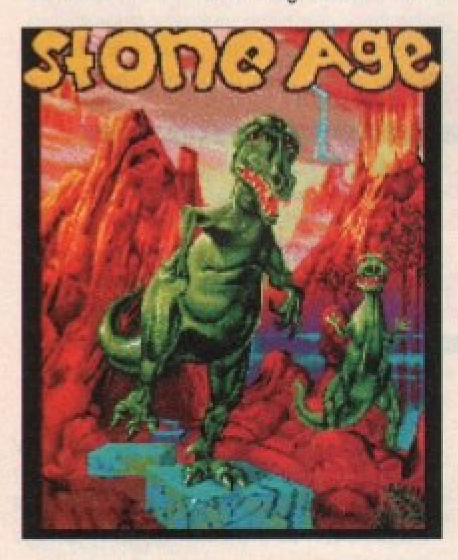
The Tribes is undoubtedly a classier product – the programmers have had two years to come up with new ideas, after all – but those who discover Lemmings by first playing the sequel and find themselves pining when all the levels have been completed would be well advised to check out this oldie. Better still, get your hands on the double pack with the data disk and all your Lem-loneliness will vanish.

STONE AGE

Grandslam's answer to the Lemmings – it's a little German dragon lost in time

The whole world has gone puzzle mad. Humans, Lemmings, Krusty's, Bill Tomatoes: up ladders, down mountains, across piles of bricks and into traps. I thought that just about every avenue of the wildly popular pastime of manoeuvring things around a monitor screen had not only been driven down, but also reversed back up, had a three-point turn performed upon it, been re-macadamised, taken up and had a vegetarian hypermarket built on it.

But apparently not, because up pop Eclipse, who evidently, not content with merely busying themselves with the kind of intergalactic warfare to



Hello – I'm the hero of the game. I don't have a name and I'm not nearly so cute in real life

be found elsewhere in this issue, have noticed that somewhere back in a hidden vortex of time there is a little dragon, which for some reason or other needs rescuing from a cave.

It isn't any old cave. Oh sure, it's made of rock and looks quite damp, but it is at the exit to this subterranean hollow where the strangeness begins. No sooner has the dragon made his way through it when another cave appears – and another, and another. A hundred of them, in fact.

I realise you know what's coming next, but I'll explain it anyway because I am the grand master of tedium. Yes – each cave constitutes a level, 100 in all – a 100 level game (you're not joking about the tedium – Ed).

The levels consist of various formations of square blocks, on one – the cave entrance – the dragon appears. Sorry to keep referring to the mythical fire-breathing beast as "the dragon", but it wasn't me who neglected to give it a name.

Where was I? Square blocks – yes, the cave is full of them and most are put there just to hamper your progress. Others are movable though, some in four directions, others in two, and some in just one, and the idea is to transport the nameless dragon to the cave's exit by way of these movable blocks.

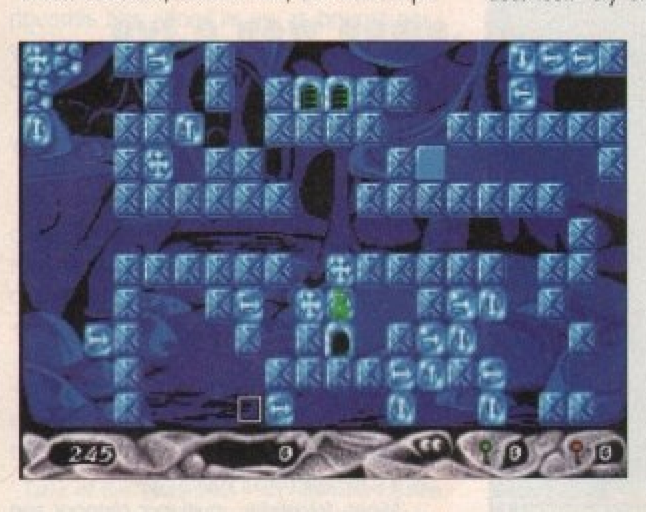
Not an easy task. The most important piece of kit is a logical mind. On first inspection some of the levels seem impossible. It's a race against time like most puzzlers, with a password for each level.

A different tune accompanies each level, and we are given the option to change the background. But apart from this Stone Age relies on gameplay alone, which is addictive in an "oh god this is just ridiculous" – type fashion.

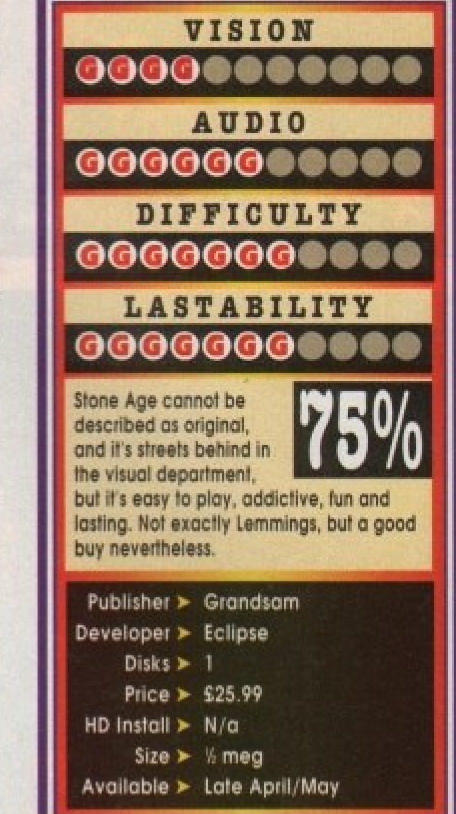
As puzzle games go this is a very competent effort, with lastability in the difficult later stages. It does look very bland though, and could have done with a cute/larger main sprite.

Several people in our office were hooked, but it may struggle to assert itself in a market already crowed with quality products.

PAUL ROUNDELL



Simply move the dragon to the exit. Easy? Not very...



ABANDONED PLACES 2

ICE continue their buy-'em-up policy and bring us the second instalment of the spooky D & D tale

London Zoo isn't the only one to feel the current financial pinch. Publishers of AP1, Electronic Zoo, unfortunately went belly up late last year, but not before they finished the coding on the sequel. ICE bought up the rights, and here it is for your delectation.

It's all put together by the team who did AP1, who incidentally most recently brought us Piracy. Continuing from the original, we are led to believe that "the world has moved on" – 400 years on in fact, and that the Pendugmalhe creator of the once evil (but now dead) Bronagh, has decided to take out his revenge on the world.

Now the world isn't too keen to be the recipient of said vengeance, and to cut a long story short, a select party is sent to confront the vengeful Pendugmalhe and to save all and sundry.

If you played AP1 – and who wouldn't after the sparkling review afforded it by Gamer? – you can transfer your saved characters, otherwise it's a scratch start.

After a beautiful animated intro, what we find is basically everything one could expect in a Dungeon Master clone, namely, dungeons, monsters, swords and spells. Dodgy control method apart, there really isn't a huge glitch at all.

The game is very large indeed and far from easy to finish, but products of this ilk are old, and they look it.

Finding your way around a too familiar maze and tackling monsters may be many people's idea of enjoyment, and quite right too, but the concept and novelty wore thin long before now. And although AP2 is a better-than-some representation of the genre, the fact that we are in 1993 means it finds itself, unfairly perhaps, in the Fanatics Only zone.

PAUL ROUNDELL



Watch out for dem bones as you begin your fight against evil



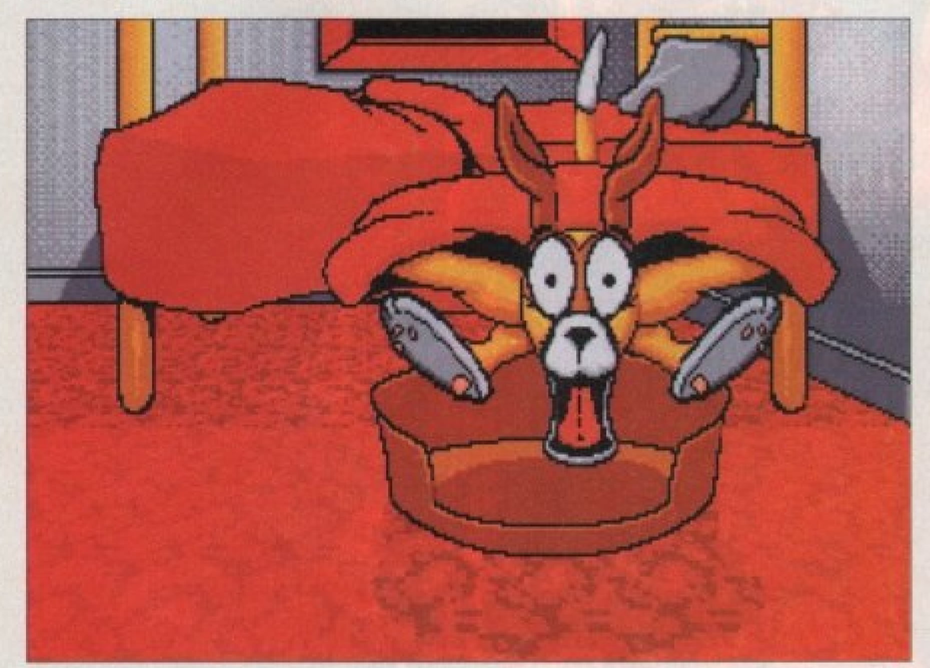

CHUCK ROCK 2
SON OF CHUCK
Now the successful owner of Chuck Motors, Chuck Rock has been kidnapped by his arch rival in business, Brick Jagger, the shady boss of the Datstone Car Company. Following the arrival of the ransom slab, Ophelia cries as she reads the list of demands to secure Chuck's release. Six month old Chuck Jnr. breaks out of his playpen vowing "I'll be back – with my dad!"
Join Chuck Jnr. on 6 levels of prehistoric combat as he battles through volcanoes, mountains, jungles and caves. Tackle dinosaurs, snakes, elephants, grizzly bears, monkeys, tigers and turtles on your way to the final confrontation – the showdown at the Datstone Car Company to rescue the kidnapped Chuck Rock!
CORE
DESIGN LIMITED
Available on Commodore Amiga (1 meg only)
Screen shots from Amiga Version
Tradewinds House, 69/71A Ashbourne Road, Derby DE22 3FS. Telephone: (0332) 297797. Facsimile (0332) 381511



Ralph decides to get his own back on the nightclub bouncer



Remember kids, electric fire heaters and water just don't mix!


I think the word "waarrghh" would describe this screenshot perfectly

SLEEP



There is a certain air of mystery about Ocean. One minute they will put out the most unbelievable pile of second-rate trash that you have ever seen in your life, next they'll put out a totally original and brilliant piece of software that makes you rub your eyes in disbelief.

Sleepwalker is in aid of Comic Relief and due to the massive publicity and the fact that every computer gamer you know will want it, Ocean can't afford to put out a stinker this time around, otherwise they'll be off down the dole office before you can say "charidee".

The year is 1993 and the mass media has found the computer game. Almost every major newspaper has a computer column, but they also run dodgy stories about computer games causing epilepsy and that they can turn your kids into mini Hannibal Lecters. Pretty sensational stuff, but scaremongering nevertheless.

Turn on your TV and you'll find computers mentioned. Whether it's the king of the double entendre Dominik, Diamond – or Andy Crane, the man with the cast iron hairdo, you can't escape them.

Pop, TV and film stars wouldn't be seen dead without their hand-helds when they're out on the town. Sonic the Hedgehog and Mario are slowly becoming international stars, on everybody's lips from eight to 80. Let's face it, computers are the in thing and they're taking over.

It's not surprising, then, that some bright spark from Comic Relief saw this incredible phenomena and decided to get in on the act. Not a bad idea seeing as computers are one of the fastest growing markets in the world with billions of pounds spent in the industry every year.

If you buy Sleepwalker, over £4 will go to help fund projects in Africa and the United Kingdom. It's not a big percentage of the £25 asking price, but every little amount helps.

Normally Gamer is sent all software for free, but in our case we were feeling rather guilty, so out came the Gamer wallet and we decided to buy it, just so we can say we did our bit.

In Sleepwalker you play the part of Ralph the dog and the idea behind the game is probably the simplest since Space Invaders.

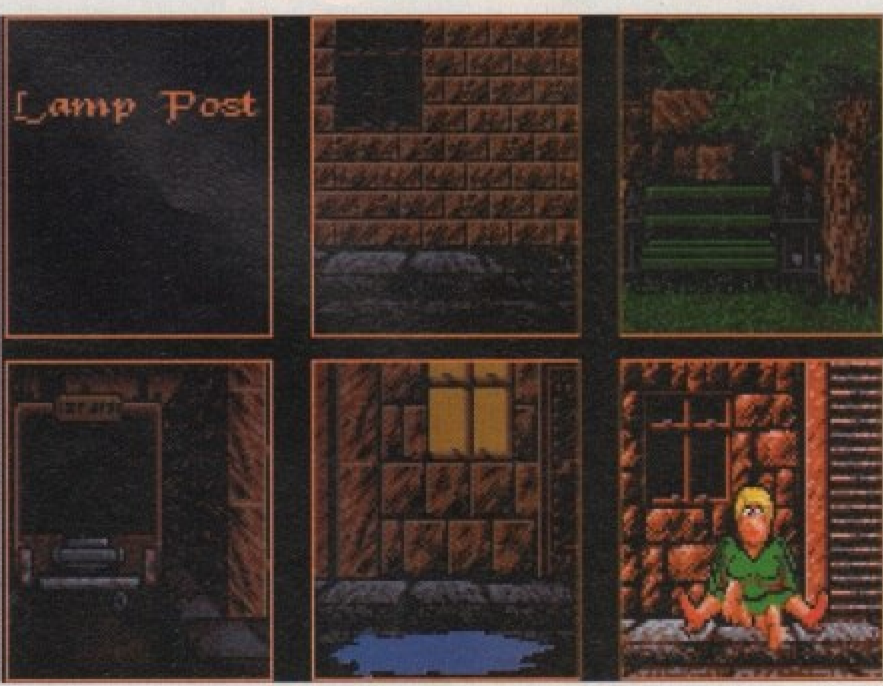
Going walkabout

Lee, your young master, has had been having problems in the sleep department. While he's asleep he decides to go walkabout. Now, this isn't too bad – normally he just walks around his room for a bit and gets back into bed.

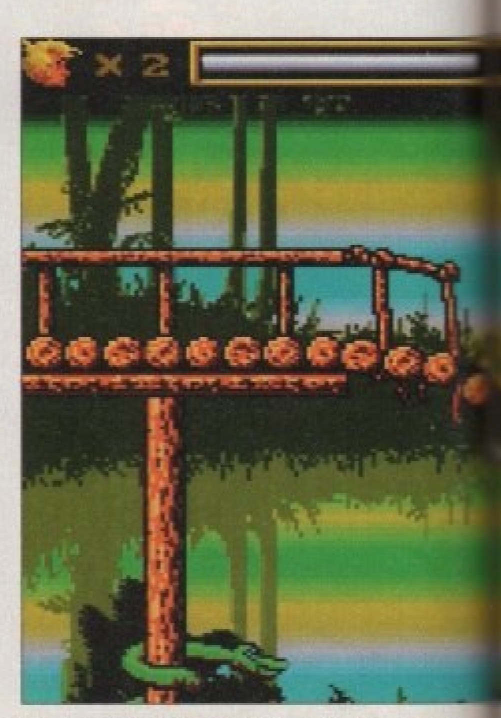
This time someone has left his bedroom window open and Lee decides to stroll around town. As his four-legged friend you must save him from all the dangers that await him in the dark streets of, ahem, Kipsville.

As if by chance Ralph has suddenly found himself with super-canine powers. Ralph can not only run, jump and bridge gaps, but he can survive being squashed, run over by trucks and even roasted.

Ralph might survive all these dangers, but Lee is not quite as indestructible. The idea is not to wake him up or you'll lose a life. At the top of the screen is Lee's sleep bar and whenever Lee is hit or damaged in any way this bar will deplete – when it's fully depleted he will awaken. Things like water will wake him up almost instantly. The objective is



Oo missus, titter ye not. The less said about that grab the better methinks



Ralph attempts bridge building the hard way


Can you guess what going to happen next?


Wakey wakey. Hey, you're just in time to watch Zig and Zag on the Big Breakfast!

WALKER

After the disastrous WWF 2 and Cool World, Ocean are back with the quite literally charidee-tastic Sleepwalker. Zzz zzz zzz...

to guide Lee safely through the entire level until you manage to get him out of the exit. Dotted around each level are various icons which will give Ralph or Lee a special ability.

For instance, the whoopee cushion will make you invulnerable for a time, the novelty ear muffs will replenish the sleep bar, and so on.

Comic collection

Also scattered around the level are five bonus noses. Each nose has letter on it which when collected will spell the word "comic" and will also let you access the bonus level.

Ralph must run around and collect red balloons. Every 20 balloons generate an extra life. There are also extra icons which, when collected in the correct order, spell out one of the hazards which Ralph, in his dreams, would like to see happen to Lee.

For instance, if you collect certain icons in a certain order you can activate a dream sequence, such as the one where Lee comes a cropper with a lamp post

The graphics are almost like watching a cartoon off the telly. And there's a 1200 version, so that means the graphics and sound will be even better. What lucky people you are! The animation is top notch and the game is actually quite funny.

The introduction and in-between game sequences are brilliant little animations with the sound effects and voices of the characters provided by funny man Lenny Henry. Sleepwalker is definitely the best presented game I have seen from Ocean in a long time.

What you're probably saying to yourself is "wait a minute, most Ocean games have good graphics and sound, but are let down by poor playability!".

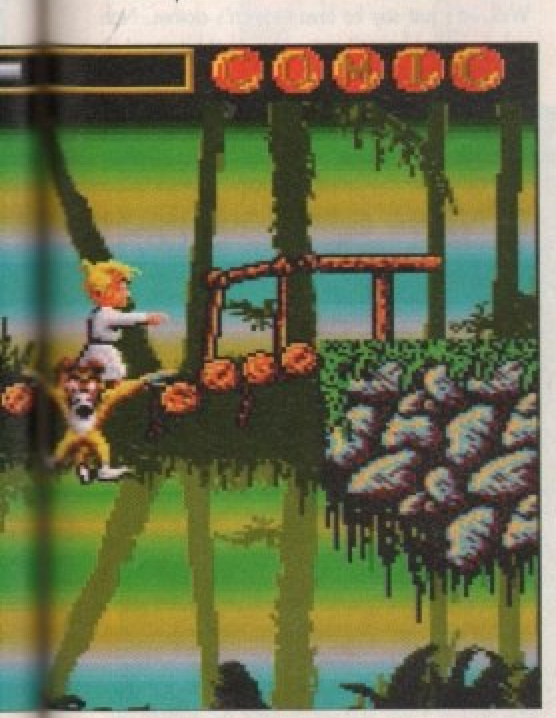
Well don't worry because there's no problem on that front. Everything has obviously been thought through and works as it should.

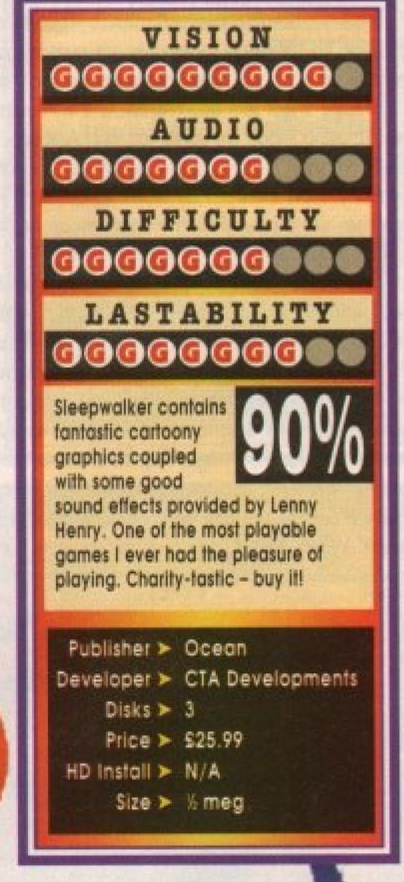
Sleepwalker is not one of those games you can sit down and progress through level upon level on your first go. The first thing you have to do is get used to controlling Ralph the dog. There are several different things he can do and it's not just a case of going left and right and stabbing fire a couple of times. You practically need to be in complete control of Lee all the time or you will fail miserably. This means you have to run ahead of him like a, ahem, mad dog and check for hazards and traps – and believe you me there are plenty to check for.

Sleepwalker is my favourite game of 1993 so far. It combines brilliant graphics and sound with cool playability and is very addictive.

Hey, it's also an original idea and original ideas impress me a lot, plus it's all for charity. Even if it was fairly average I would have thought the British public would have bought out of the goodness of their hearts, because for starters it's better than sitting in a tub of baked beans for 24 hours.

JONATHAN MADDOCK







VISION

AUDIO

DIFFICULTY

LASTABILITY

90%

Sleepwalker contains fantastic cartoony graphics coupled with some good sound effects provided by Lenny Henry. One of the most playable games I ever had the pleasure of playing. Charity-tastic – buy it!

Publisher ➤	Ocean
Developer ➤	CTA Developments
Disks ➤	3
Price ➤	£25.99
HD Install ➤	N/A
Size ➤	½ meg

What did I tell you? I said don't buy Streetfighter 2 unless you are really desperate for a beat-'em-up. Well all I can say is there must be a lot of desperate gamers out there. I don't like saying it, but I told you so. Believed all the hype, that's what you did. Taken in and spat out. Well, do you want to put wrongs to rights? All you have to do is buy Body Blows and maybe I'll forgive you.

Streetfighter 2 was the number one game over Christmas and that was all down to mass marketing, hype, and advertising. It didn't matter if the game was good or bad – Streetfighter 2 was destined to be number one because believe you me there are a lot of silly people out there who don't listen. I could see it coming a long time ago, in fact I said in the news pages when Gamer first heard about SF2 that it would go to number one.

Back then I didn't know what the game was going to be like, but I had terrible feeling in the back of my mind that it wouldn't be much good. Don't get me wrong here, I like Streetfighter 2. I've played it more times than I can remember on my little brother's SNES. How any Amiga gamer could expect the Amiga version to be as good as the SNES version is beyond me (careful! – Ed). OK, so it had fairly good graphics, but there's wasn't much in the way of playability.



"Smack" went his fist as it lodged in his opponent's face

Normal people do not turn into whirlwinds

GAMER GOLD

BODY BLOWS

Streetfighter 2? "Pah!" say Team 17, "We could do a much better beat-'em-up than that." The gloves are off...

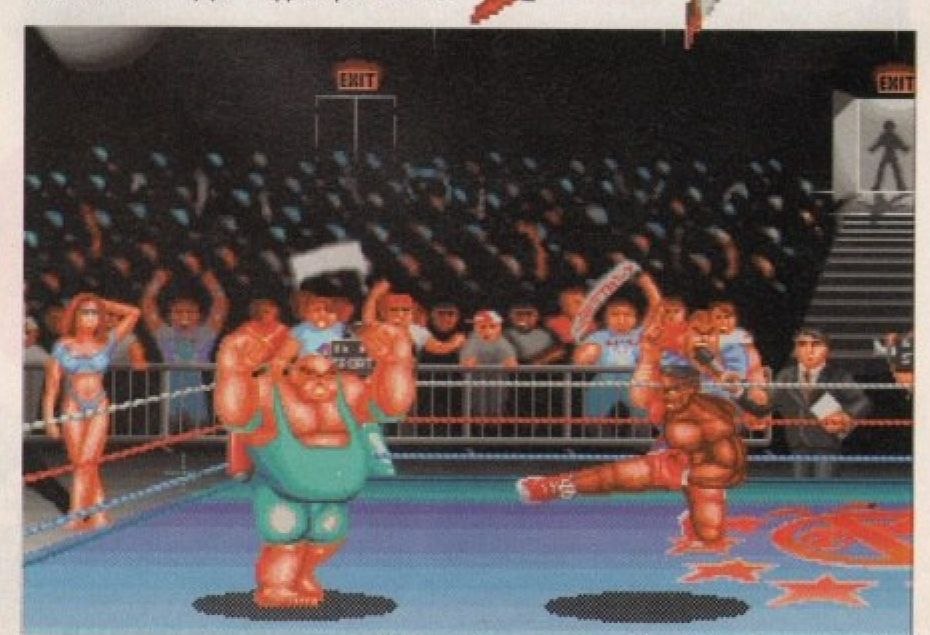
Team 17 haven't released as many games as US Gold, but they go for quality not quantity. So far they've managed Alien Breed, a classic gauntlet runaround shoot-'em-up, Project X, the Amiga's best scrolling shoot-'em-up by far, and Assassin, a really amazing platform game which was knocked by many. Now there's Body Blows which Team 17 promises will be the definitive beat-'em-up on the Amiga.

Also on the way is Super Frog, a cutesy humorous platformer which could well be one of the biggest games on the Amiga since Zool. The future is looking bright for Team 17. While other companies continue pumping out their bog standard games, Team 17 keep on producing top quality arcade titles for the Amiga. This lot are smart and anyone who disagrees can step outside right now.

Beat-'em-ups are not the easiest thing to write about. When you've seen one you've seen them all. It's rather like trying to explain what a 'tree' is. What do you mean a tree? It's a tree-thing with leaves on and sticks out of the ground. It's a tree.

The same goes for a beat-'em-up. A beat-'em up? It's a game where your opponents kick and punch the crap out of each other until someone wins. There isn't a lot more you can say, really. Well there probably is, but I'd only be waffling on for no reason whatsoever.

Body Blows is incredibly fast and smooth and when I first saw it my jaw dropped open and I did a bad impression of a guppy. The game has a full 32 colour overscan display and contains loads of sound and speech that is guaranteed to impress anyone who plays it. You couldn't really ask for more in the playability department, but that's Team 17 for you.



Look at the belly on him. Porky git

There are three different ways you can play Body Blows. The first is one-player mode for people with no friends. In this mode you get a choice from Dan, Nik, Lo-Ray and Junior, the four "hero" characters. You then have to take your character and do battle against ever tougher opponents in an attempt to beat the evil Max and discover his terrible secret. You want to know what his secret is? Well, let's just say he likes women's clothes. Nah only kidding I haven't got a clue what his secret is, not having got that far yet.

The two-player option is definitely for people who have a good buddy. You have a choice of ten fighters, and as well as the aforementioned fighters you can now choose Kossak, Mike, Maria, Dug, Yit-U and Ninja. The fight can be set up to your own options, so for instance you can change the time limit, decide how many rounds you want and fight character against character.

Another option is the tournament and it's only for people with loads and loads of friends. This mode allows four or eight human players to take part in a massive Body Blows knock-out tournament to compete for the prize of the champion's belt. This will definitely cause actual fights if you don't get the fighter you want.

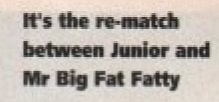
In Streetfighter 2 there were quite a few moves, but not as many as there are in Body Blows. Each fighter can perform 21 moves, including the ever-so-important special moves, but these depend on which fighter you want to be.

You might have five special moves if you play the part of Dug, but you'll only get two if you choose to be Yit-U.

There are a lot of moves, so common sense



Now there's something you don't see every day!



It's the re-match between Junior and Mr Big Fat Fatty

would say that the game would be incredibly hard to control. Well, forget common sense because playing Body Blows is so easy that even those who don't know what computers are could play it.

However, though it is easy to play, Body Blows will take a fair amount of time to master. Players will ultimately gain a lot more satisfaction from the game if they can work out all a character's moves, allowing you to totally destroy any beginners who come round to your house for a quick go. Ha ha sneaky, but worth it all the same. There you have it. I'm not going to tell you any more about the game because there isn't anything to tell. It's a beat-'em-up, remember? Time to give overall opinions, even though you know what I'm going to say.

It's fight night. So come on get fighting

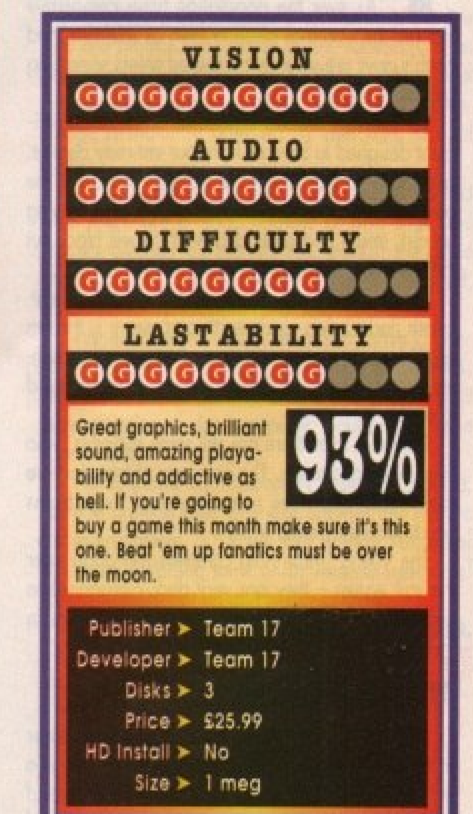


Body Blows is the best Amiga beat-'em-up since IK+. The game just oozes class and quality, graphics are amazing, the animation of the characters is really good and there is no possible way I could fault them. Will take you a couple of seconds to play, but a lot longer to master.

The control method is fluid and very easy to use and it doesn't require gamers to use a combination of joystick moves to set off the special moves. All you have to do is hold the Fire button down and release. This is a very addictive game, especially in two-player mode because you just have to beat your mate's head to the floor once more. Of course you could always use the joystick instead. Like most beat-'em-ups Body Blows is much better when you have a few friends around and doesn't have that same air of excitement when you're sat down paying it on your own.

I can't fault Body Blows unless of course you're not fond of violence, in which case you definitely won't want it. Body Blows has everything that you would expect from Team 17. You didn't listen when I told you not to buy Streetfighter 2, perhaps you'll listen when I tell you to buy Body Blows. It body brilliant.

JONATHAN MADDOCK



VISION

GGGGGGGGGG

AUDIO

GGGGGGGGG

DIFFICULTY

GGGGGGGG

LASTABILITY

GGGGGGGG

93%

Great graphics, brilliant sound, amazing playability and addictive as hell. If you're going to buy a game this month make sure it's this one. Beat 'em up fanatics must be over the moon.

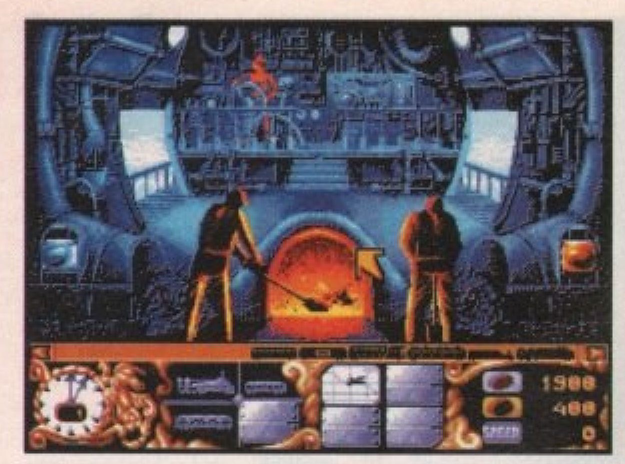
Publisher ➤	Team 17
Developer ➤	Team 17
Disks ➤	3
Price ➤	£25.99
HD Install ➤	No
Size ➤	1 meg

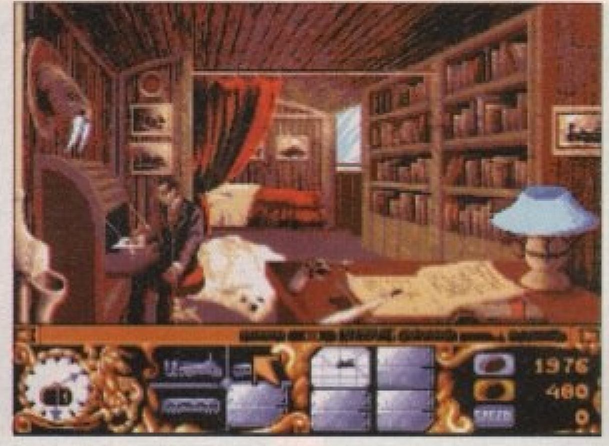


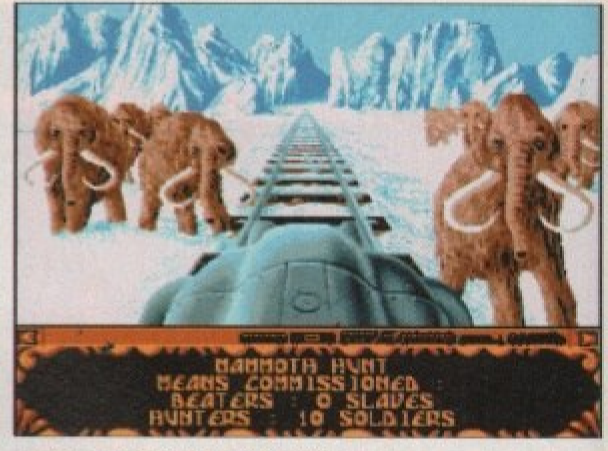
Man in baseball cap gets sliced by ninja. Exciting, huh?



Thud! Ouch, I bet that hurt


I am the God of Hell Fire and I bring you... a big train!


British Rail carriages don't look like this



Knowsley Safari Park, I don't think

TRANSARCTICA

What have trains, global warming, and large nuclear explosions got in common? Read on...

The year is 2022 and it's Christmas Eve. The world has been ravaged for many years by the Greenhouse Effect and is slowly dying. As ever the population have completely ignored the warnings given to them by scientists, and Earth's days are severely numbered unless something gets done pretty sharpish.

So scientists devised Operation Blind, an experiment designed to save us from our untimely demise. Two large nuclear devices have been planted at the poles of the earth. These are set to explode, throwing up dirt, steam and other debris which will block out the sun's rays and cool the world (man).

But as so frequently happens, the scientists miscalculate and far too much earth and steam is thrown up. The world is plunged into an intense nuclear winter, all civilisation breaks down and the ground freezes.

Centuries later there are still some survivors, who live in cites and towns. The only form of transport are mammoths who have re-evolved and huge trains which span the frozen wastes.

The Viking Union hold complete monopoly over the rail system – they are very dodgy organisation who tend to kill anyone or anything that stands in their way.

MYTHICAL BODY

Because there is a massive cloud and debris layer in the Earth's atmosphere, the sun has become a mythical heavenly body. People who have read about it want to see it again and have set out to find more about it.

Of course the Viking Union is none too chuffed about this and so kills them off but the resistance who, for want of a better word, are called The Ambivalents, have stolen the Viking Union's biggest train, the Transarctica...

Because trains are the only thing that work any more, the currency has changed. Coal in two different forms is now the way in which people trade.

Lignite is the base form of currency used for buying goods and tradables, Anthracite a richer form which is used for running the trains on.

Just because you've got this massive train doesn't mean you haven't got a care in the world – there are plenty of things you should be worried about.

Great hordes of wolves roam the icy wastes looking for trains, a bit like a tinned meal for them really, and as you can imagine the Viking Union aren't too chuffed at the fact that you have stolen their best vehicle.

Indeed, their battle trains are out on the rails after you. Also when you are going through underground tunnels you must watch out for Mole Men, cannibals who have adapted to living underground.

To progress you must trade with the various town and cities and build up the Transarctica into a bigger beast than it already is, and you must put out your spies to find more about what really happened and what the rumoured Operation Sun is.

Transarctica is controlled entirely by the mouse, clicking on icons around the screen. The first screen is the engine room. This is where the speed and general movement is controlled from. You have to carry out all the usual tasks that you would on a normal steam train like building the fire, building up steam and keeping the coal burning, but remember you only have a limited amount of Anthracite.

The other carriages contain the rest of your small band of men and more importantly a scale map of the entire area you can cover with the Transarctica.

At first I thought the gameplay was a little slow but then I discovered that the clock in the corner of the screen is to speed up the play – if you click on it, it will make everything in the game run quicker including the train, so there's no hanging round.

Had Transarctica been as graphically excellent as Dark Seed or Waxwork it really would be a fantastic.

It still up to a pretty good standard but it's not brilliant. The styling similar to the latest Bitmap Brothers release, the Chaos Engine. However the gameplay does make up for it. A good one, definitely worth a look.

BEN STYLES

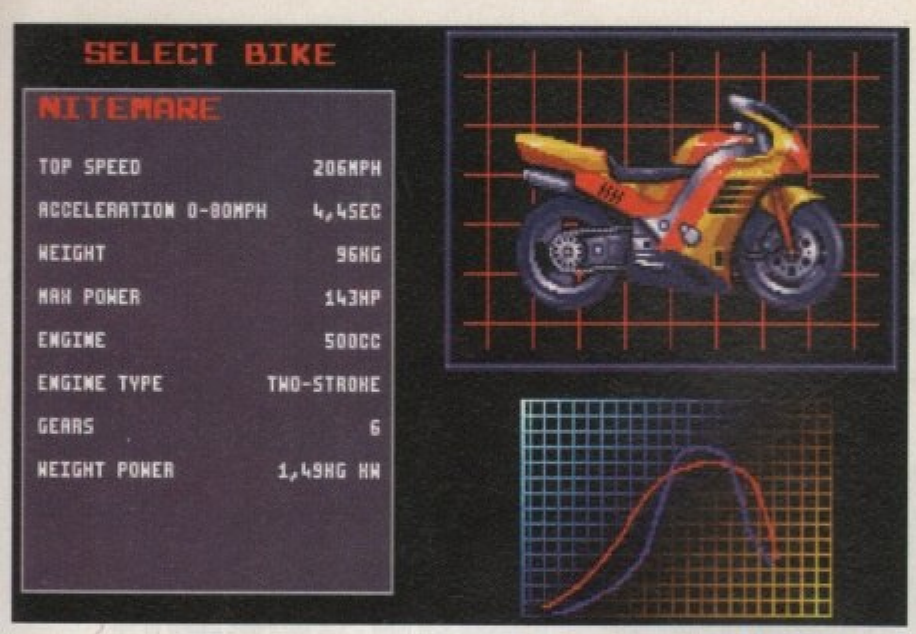

Comfy carriages complete with big train set

VISION	7/10
AUDIO	7/10
DIFFICULTY	8/10
LASTABILITY	9/10

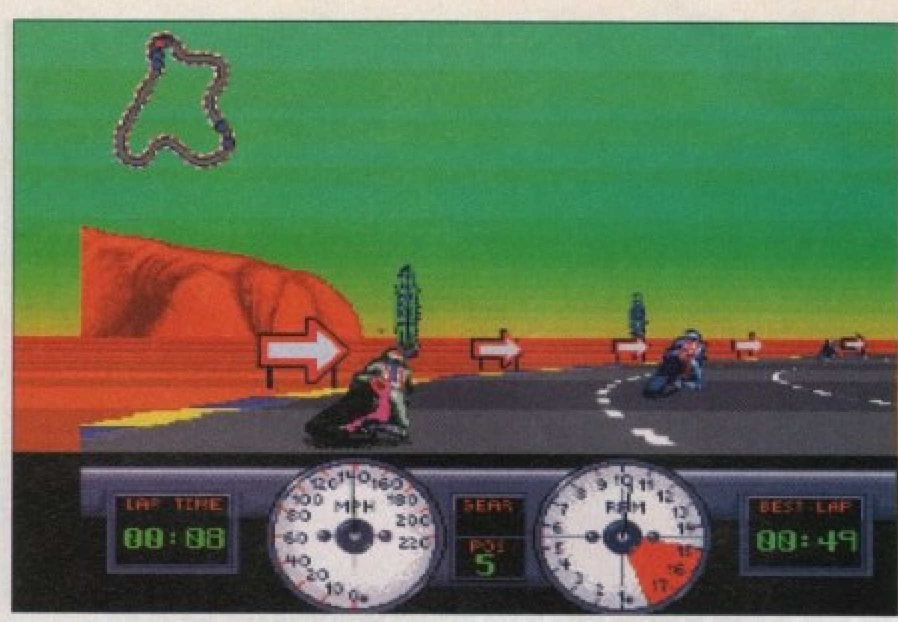
89%

Transarctica is a fantastically atmospheric game. Had the graphics been up to Dark Seed's standard then it would have been an instant classic. Nevertheless it's a wonderfully playable effort that I can recommend to adventure and arcade types.

Publisher	Daze
Developer	Simaril
Disks	2
Price	£25.99
HD Install	N/A
Size	1meg



At 206 mph this Monster's a must...



...but it doesn't stop us coming last

PRIME MOVER

As a kind of apology for Red Zone, Psygnosis get their motors running once again to bring us another helping of two-wheeled action

Psygnosis have built up a real head of steam of late – their last half dozen releases have all been excellent, and I must admit that Gamer feared that record was coming to an end when we learned they were dabbling in the motorbike business again.

Thankfully though, it's not another sim but a traditional racer – and make no bones about it, it's out to be number one.

Prime Mover was developed by Danish boffins Interactivision, and if the pre-release hype fuelled by themselves and Psygnosis is to be believed, we're faced with the fastest bike game ever. If this is the case then why the title?

Surely an exciting barnstorming speed king of a game should be rewarded with a decidedly more catchy name. I mean, I personally can't think of anything suitable, but then that isn't my job is it?

But not to worry – Prime Mover it is and Prime Mover it's going to stay, and besides, it's how the game plays which matters most. So without further ado, let's investigate.

Armed with your best leathers and sporting your favourite tattoos, you are very courteously provided with 12 tracks on which to race, and any one of these can be chosen at random when in another generously added feature – the practice mode. First though, a choice must be made as to which of the 12 riders you want to represent.

Now I don't know what it is with games of this sort, but whenever this kind of choice is offered, the motley array of riders always seem to comprise of an assortment of genetically mutated, inebriated extra terrestrials on acid. I'm sure there must be some bikers who lead quite normal lives. But we digress... Choice of rider made – personally I prefer the woman with the muscles and the purple hair! – and it's off to the bike shop to select your machine from a choice of six.



Arrows indicate where a faster rider is about to appear

All the bikes are quoted as having different weights, top speeds and handling abilities, although there is little advantage or disadvantage to detect when out on the track. Full race mode entails taking part in 12 races in various locations around the globe, with points for the winners and an overall accolade for the ultimate champion.

And indeed it is fast! Not sufficiently so to be hailed outright as the all-conquering, fastest ever bike racer, but plenty fast enough to coax the odd "ooh" or "aah" from onlookers.

The race locations range from the deserts of Australia and the rainy streets of England and Sweden to the cities of Mexico and the USA, and the programmers have done an excellent job in maintaining the game's speed while managing to pack a fair amount of detail onto the screens.

One of the best features of top games such as RVF Honda, No Second Prize, and even Road Rash to some extent, was that the number of competitors on the track made the whole affair a real challenge, with genuine satisfaction when a manoeuvre went right, and it is on this point where Prime Mover loses marks. Only seven competitors take part in each race, and although races are reasonably short – around four laps usually – relatively long periods of time can pass without encountering a soul.

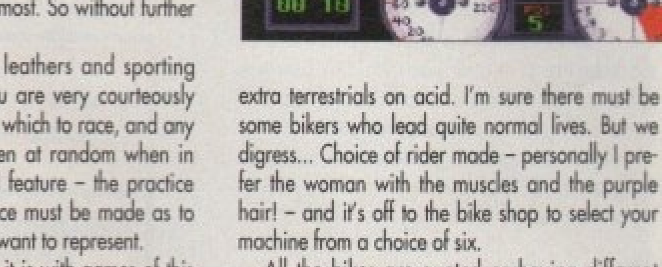
Admittedly, the speed of the passing landscape and looseness of control ensure that complete concentration is a necessity for the most part, but it is the one-on-one competition in any race that raises excitement levels, and Prime Mover could and should have contained more, although the challenge is instantly doubled by selecting manual gears.

A quick mental calculation will confirm the fact that there are a good number of bike sims and racers already on the market, though the good ones can be counted on the fingers of one hand, and innovative ones are rarer still.

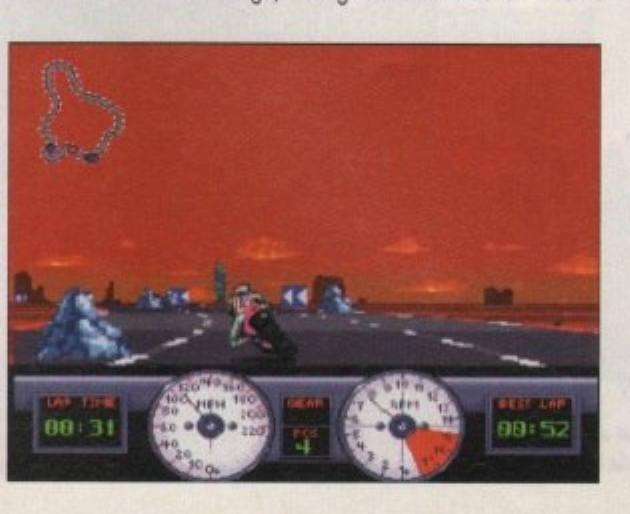
For example, it would be nice to have a genuine selection of tracks, including hill climbs, motorways and others, and a two-player split screen option, if done properly, would really set a game apart.

Prime Mover is undoubtedly a quality product, sure to provide race fans with another few months of entertainment, but it will take another release of this kind, including some of the features mentioned above, before I sit up and begin to drool.

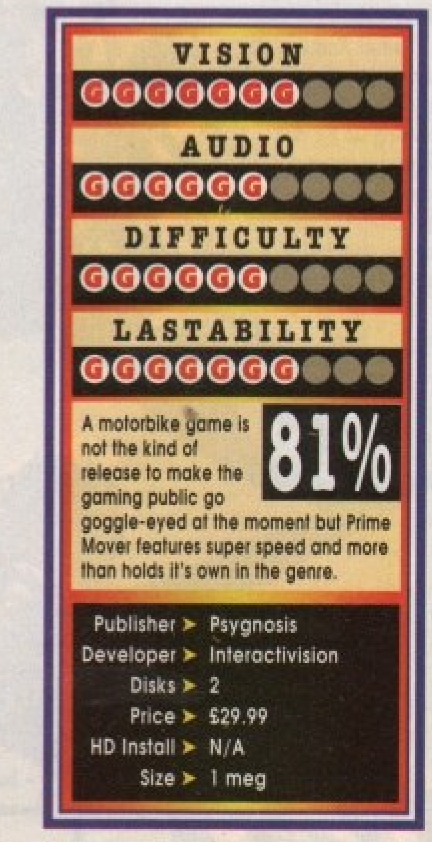
PAUL ROUNDELL



The seven riders space out to make the starting grid look more impressive



Now why would anyone leave a coconut macaroon on the track?



VISION	7/10
AUDIO	6/10
DIFFICULTY	6/10
LASTABILITY	7/10

81%

A motorbike game is not the kind of release to make the gaming public go goggle-eyed at the moment but Prime Mover features super speed and more than holds it's own in the genre.

Publisher ➤	Psygnosis
Developer ➤	Interactivision
Disks ➤	2
Price ➤	£29.99
HD Install ➤	N/A
Size ➤	1 meg



The game switches to bizarre mode as you suddenly begin firing keys and triangles



It's fashionable to knock Sonic the Hedgehog just now – but isn't this going to far?

LETHAL XCESS

Here at last is a shoot-'em-up to dispel those pent up frustrations, so put the carving knife and shotgun!

Walk into any arcade or fairground and all you'll hear are the death throes of thousands of aliens as they find themselves blitzed back towards the planet Felch to the accompaniment of shouts of glee from the teenybop army.

Spectrums and C64s used to whirr and shake wildly to similarly familiar intonations, but sadly, such games have been few and far between on the Amiga.

Clutch your favourite joystick and arm your weapons though, because after too long a wait we have an out and out shoot-'em-up on our hands once more...

Who remembers Wings of Death? It was rather underrated on it's release a year or two ago; developers Eclipse have put their talents to work once more in what is essentially Wings of Death 2.

I'd like to lay out some kind of scenario for you, I really would, but unfortunately my copy of the game is the German version and comes complete with matching box and manual, and since my understanding of the language stretches no further than the names of one or two particularly pleasant lagers – you're scuppered.

But what do we need to know? No amount of Damsel In Distress sob stories are going to detract from the fact that the whole idea is simply to sit in your spaceship and obliterate everything that moves, are they?

Lethal Xcess is ye olde fashioned shoote-uppe; on booting up the disk what I appeared to have in front of me was the chunky graphic-kill-bomb-shoot-kill-shoot-shoot-kill frenzy which I had been waiting for for some time – quite a change of direction for Grandslam who, it would seem, are making a real effort to break into the big league of late.

The ship is a fairly standard affair – just your average intergalactic cruiser with the usual blend of improbable shapes, large guns and strange Scottish men in the engine room.

You begin your voyage into mindless violence with just a few poxy triangular missiles, which can either be powered up or exchanged for other methods of destruction, and although the game, as a concept, represents nothing particularly new, the power-ups are well thought out.

There are seven upgrades, all introduced proudly by a digitised voice proclaiming "triangle!", "drone!" and, uh, "wiper", among others. Once you've collected a power-up, look out for more of the same, as each PU can itself be enhanced by amassing a collection of identical pods, making for an awesome weapon.

Such awesomeness is a necessity, actually, as the game is far from an easy ride. Even on easy mode the baddies come flying thick and fast, and on the subsequent two settings your three lives are likely to last about as long as a Bill Clinton tax promise. Throughout the five levels the number of enemy sprites increase, as does the difficulty in destroying them, and towards the end of the game only a huge weapon will do if you are to achieve any success in saving the earth, or whatever it is the manual tells us we should do.

Five levels – yep, not many is it? Fortunately, all of them are a decent length, and the sheer number of baddies make for a good sized game, although fiercer level guardians would have provided an even sterner challenge.

The speed of the ship could have been faster – when the screen becomes packed with enemies, as it frequently does, the sluggish craft struggles somewhat keep out of harm's way, and can often be caught out by new arrivals at the bottom or side of the screen.

One way (and the most fun, incidentally) to guard against the spaceman's equivalent of an early bath, is to team up with a chumly in the co-operative two-player mode, and fight it out over power-ups and bonuses, but whichever way you look at it Lethal Xcess is a very good – not great, mind – effort in the now neglected field of the shoot-'em-up.

PAUL ROUNDELL



Colourful and busy – but a bit more speed would have been great



VISION	7/10
AUDIO	6/10
DIFFICULTY	7/10
LASTABILITY	8/10

83%

All the standard shoot-'em-up features are included and the two-player mode adds a little more depth. All in all, a fun and addictive game that left me wanting more.

Publisher ➤ GrandSlam
Developer ➤ Eclipse
Disks ➤ 2
Price ➤ £25.99
HD Install ➤ N/A
Size ➤ ½ meg

UNIVERSAL MONSTERS

Ocean own more dodgy licences than a cowboy taxi firm, and they're about to add some more. Or are they?

Everybody knows how Ocean just love to buy up licences – if an action film is around on general release, the chances are that sooner or later the game will come our way courtesy of the boys from Castlefield.

Arnold Schwarzenegger, Bruce Willis, Mel Gibson, Kim Basinger and more have all had the pleasure of witnessing their pixellated forms wandering around an artificial world on our monitor screens, and all to varying degrees of success.

Now Ocean are moving in a slightly different direction.

"What – leaving the licensing malarkey?" I hear you cry.

Oh no. In fact nay, nay and thrice nay, as Dick Emery or someone like that used to say, because they have in fact done just the opposite.

Instead of purchasing the rights of exploitation for a single movie, they've taken a trip to Hollywood, parted with huge amounts of wonga, and walked away with the game rights to all of Universal Studios' monsters.

Yes, monsters – you know, like Dracula, and Frankenstein, and his bride, and the Wolfman and the Mummy and the Creature from the Black Lagoon (you mean Ben? – Ed). All six have sold their collective souls and appear en masse in this nostalgic isometric adventure.

The story goes that famous vampire hunter Professor Van Helsing has died, bequeathing his thankless job to grandson Alex.

The aforementioned ghoulies have long since been captured and banished to another dimension from where they can inflict no further harm on two-bit Tinseltown scriptwriters, but in order for them to remain there a ceremony must be performed every so often – the Rite of the Bloodstar.



Alex enters the dungeons of doom. Woooooo...

What with the funeral and all though, Alex misses the number 39 bus to Other Dimensionsville to perform the ceremony, and the monsters begin to enter our world through Van Helsing's castle. Not only that, but by some mysterious and unexplained circumstance, the Bloodstar has been broken into six pieces, which are spread around the castle. With grandpops dead, it's up to you as Alex to find the six pieces and return the monsters to their limbo.

Considering the limitations of this type of game, the graphics are very nice indeed. The Alex sprite is large and chunky, and the backgrounds, while not differing a great deal from each other, are colourful and reasonably well detailed.

Each Universal monster commands his or her (or its) own domain within the castle, and in each domain you will find – or at least you should unless you're daft – one piece of the Bloodstar.

Find the all-important bit and you are in a good position to kick the beasty back to where it came from. A good position, but not a great one, because each monster has to be confronted with a particular item before they can finally be vanquished.

The obvious example is Dracula, who will only be subdued by a crucifix. The Creature from the Black Lagoon takes a harpoon and Wolfman a silver bullet and so on.

An isometric perspective prevails, as you can tell from the screenshots, and the rooms of the mansion scroll smoothly throughout.

Apart from the obvious problem of avoiding the monsters long enough to enable you to perform the ritual, there are pitfalls and booby traps throughout the castle where it's easy to come a cropper.

Minor monsters roam freely in all the levels: unlike the main characters, these can be killed, although it's a tough task since Alex doesn't carry any weapons.

As you would expect of a rich person, your grandfather didn't trust people with his treaures, and consequently kept most of the rooms in his home locked.

Therefore keys play an important role in the game, not only for access to rooms where the monsters may lurk, but also in enabling you to find treasure and magic potions, which provide you with temporary powers of ESP and invincibility.

Hidden platforms, huge remote spikes and a host of other nasty surprises are littered around the place; useful items are the teleporters which transport you from one end of the castle to the other.

A menu can be accessed from any point in the game, giving details of your potions, Bloodstar count, and the remaining strength of your adversaries.

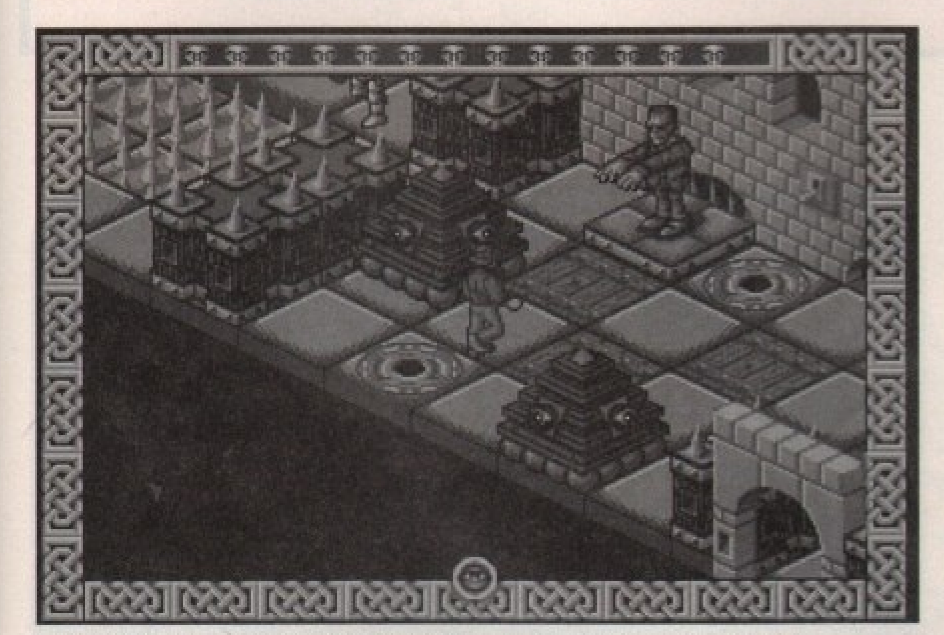
Universal Monsters is a large enough game, and it's important to keep on your toes at all times for threats from all kinds of places.

Due to its size though, there are occasions when little or nothing happens for minutes at a time, and tedium begins to creep in.

This type of game was popular about five years ago when Spectrums were still in demand, and Universal Monsters will not be looked back upon as a gaming milestone.

In all fairness though, the programmers have worked hard at bringing the game up to date, and have succeeded to a point. Universal Monsters doesn't make my list of all-time favourite games – in fact it doesn't receive a nomination – but it's easy to get into, easy to play, and provides a real challenge for anyone prepared to take a step back in time.

PAUL ROUNDELL



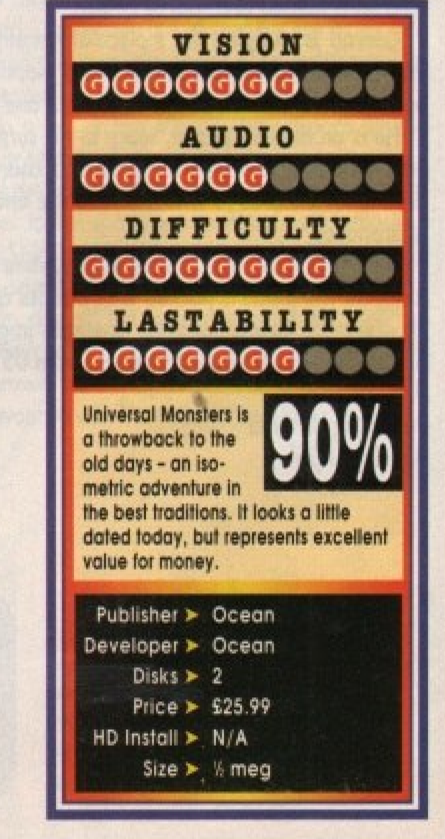
"Frankie, do you remember me..." Alex gets down to the new-look Sister Sledge



Is that Suggs out of madness with the sunglasses and rigamortis?



Not even Indiana Jones could get out of this spiky stew



VISION

AUDIO

DIFFICULTY

LASTABILITY

Universal Monsters is a throwback to the old days – an isometric adventure in the best traditions. It looks a little dated today, but represents excellent value for money.

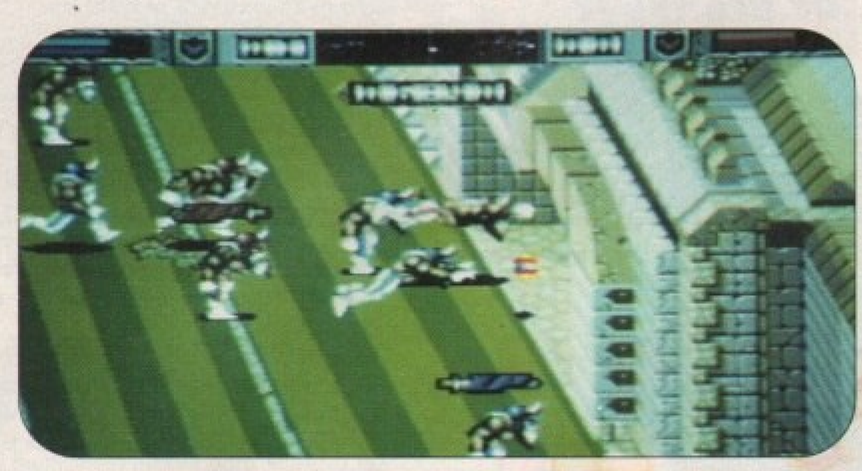
90%

Publisher ➤	Ocean
Developer ➤	Ocean
Disks ➤	2
Price ➤	£25.99
HD Install ➤	N/A
Size ➤	½ meg

Not one, not two, or even three - but FOUR juicy slices of things to come, dribbled over profusely by Paul Roundell

ON THE Drawingboard

Beast Ball



It might resemble a large ornamental fireplace, but this is in fact the goal, and as such is obviously quite important. It's difficult to score even one goal without encountering violence of some kind, but it's all good fun – if not particularly good taste!



The passing system is a doddle, and the speed of the running sprites makes the whole thing a very frantic affair indeed. Another useful weapon is the Icebomb – temporarily freezing your adversaries and providing you with a free run at goal

...or is it Psycho Ball? Millennium haven't been able to make up their minds yet as to which title best portrays the intrinsic manic violence of the game. Having seen it I might venture that "Thud! Squelch! Ho ho ho! Aaargh my head! Decapitation festival!" is an apt description if not a particularly memorable name, because this just about sums it up.

Reminiscent of The Running Man movie in terms of plot, Beast Ball is a futuristic sport devised to satisfy the violent urges of a nation of psychos.

American Football-esque, it's played by teams of genetically engineered mutants more interested in the maiming their opponents with the variety of weapons on the pitch than they are in scoring goals.

And boy can they maim! In fact, you can if you wish ensure victory in the match by methodically murdering your opponents until none are left. It seems to work as well – Wimbledon are still in the Premier League, after all...

Viewed from the side, the gameplay is astonishingly easy – passing, running and scoring are basically it – and a full league system complete with promotion and demotion will give lasting appeal.

Add to this the fast, large, colourful sprites and more than a smattering of tongue-in-cheek violence, and we have in the offing what may very well become a classic sports game.

Publisher: Millennium
Arrival: Second half '93

Flashback

If the completed Flashback maintains the level of excellence seen on our early version – and there is absolutely no reason to believe otherwise – then it will follow Lemmings, Sensible Soccer, Populous and a small select band of others into the Amiga hall of fame.

It's brought to us by Delphine, the brains behind Another World, and concerns the trials and tribulations of a fine young gentleman named Conrad B Hart – a research scientist who finds himself in a spot of bother.

Conrad is studying the molecular density of individuals, and finds to his horror that many world leaders are in fact aliens planning to take over the world. When the ETs find out about him he is captured, escapes... and the game begins.

He is on another planet, much to his surprise, and it all gets a bit Total Recall-ish from here on out as the superbly animated character (see Prince of Persia for details) chases around for clues as to who this race are and, more importantly, where exactly he himself is stranded.

Flashback looks like an arcade adventure – albeit a great one – but it's much more than just that. The game is packed with puzzles and problems that will make the five large levels seem like forever, and the cinematic in-game screens and dead smart sound all make for another mouth-watering release from US Gold.

Publisher: US Gold
Arriving: April

FLASHBACK



There is the option to choose "zoom mode", whereby all the action scenes are automatically enlarged as they happen. It's a bit pixelly, and difficult to implement your moves at times in this mode, although it does add further depth to the already sexy backdrops and sound



Moving animations crop up throughout the game, from simple tasks to character interaction. They load quickly so as not to disrupt the game in any way, and can be ended prematurely if desired at the touch of a friendly function key

The Ancient Art of War in the Skies

Consider the title of the game, and the fact that it's published by Microprose, and a not too unreasonable assumption would be that this is a flight sim. But it's not – at least, not strictly speaking.

A A W S is a strategy/action-type affair, with the emphasis placed firmly on the strategy aspect, and has been doing very well thank you in the PC market for a couple of months now.

As the leader of a crack airforce, the objective is quite similar to most flight sims, in that an enemy land must be entered, their factories destroyed, airfields captured and the leader forced to surrender.

Many Microprose releases in the past have relied on this type of scenario, but from this point on it's all a bit different as we concern ourselves with the actual planning behind each campaign and sortie.

Over 40 campaigns – both fictional and historically correct (the real ones being taken from WWI) – are built into the game, with a campaign editor and numerous training missions, which serve to make A A W S more accessible than many other similar games.

The basic idea is to decide how best to implement the good ol' boys at your disposal in order to bring about the fall of the enemy, after first taking a look at just how he is positioned.

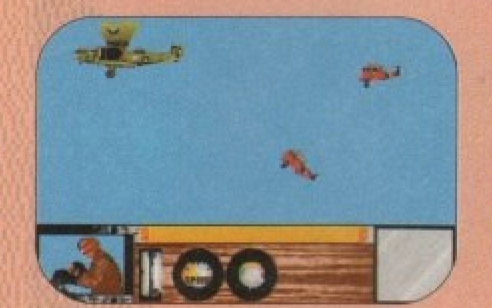
By targeting key areas of hostile territory such as power stations and bunkers, you are guaranteed some action, and it is here where you can if you wish jump into the cockpit and get involved in a dogfight.

The action is more of the arcade kind though, as you view the fights from a removed perspective. It's a reasonably small part of the game and a nice break. But A A W S is first and foremost a strategy encounter – a large one – and it's looking good.

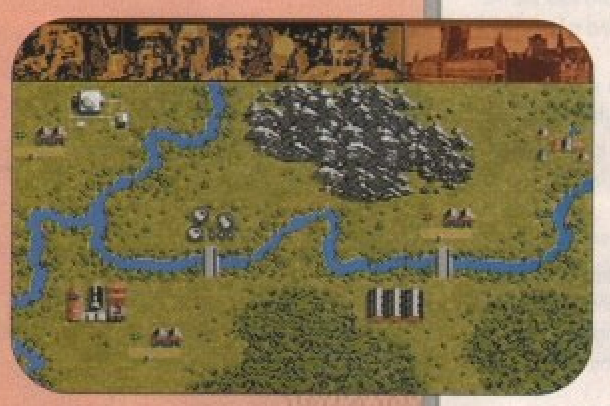
Publisher: Microprose
Arrival: May



Great digitised pics are scattered throughout, some containing helpful comments from Sun Tzu, whom it would seem is your mentor. With arcade graphics to match these, AAWS might have found appeal in a larger market, but it still looks a good bet for strategists



When entering a dogfight, there are two situations you can find yourself in – either full control of the plane, including its weapons, or control only of the bombardier. Bear in mind though that this does seem to be just a small part of the game



As the campaign is played through, the results are logged and displayed on the large scrolling map. The key targets are shown as are enemy troops and planes, and the land changes colour according to the conquering parties

James Pond 3: Operation Starfish

Everyone knows about James Pond – he's a fish-like person along the lines of Billy Thompson in Viz, only James doesn't float in mid air and make incredible point blank saves while surrounded by improbable and badly-drawn characters spewing forth a barrage of bad language and sexism. But he is a fish, nonetheless.

And what a fish! Gone have the days when James would gasp for breath like a smoker up the Cairngorms at the mere sight of dry land; apparently this placed far too many limits on the gameplay, and now James, customised gills and all, is back to thwart the evil Dr Maybe once more (because he's done it before, see).

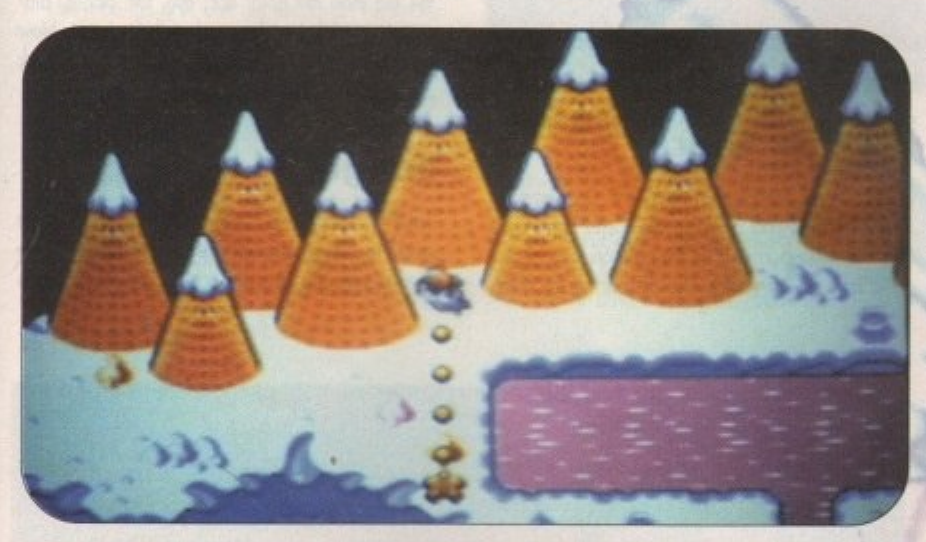
FI5H chiefs suspect the Doctor is setting up a lab on the moon after a Space Shuttle disappears, and James is sent there in a similar craft to check what's what.

Operation Starfish is shaping up into one of the largest platformers the Amiga has seen – it's a 100 – stage run 'n' jump caper and sees James sporting a couple of new features.

For starters he's dressed in a funky RoboSuit 2, complete with gravity boots which allow him to cling to and run along just about any surface he encounters.

James can also pick up items and use them against the large enemy sprites, and for simultaneous two-player action we are introduced to his good pal Finneius Frog. The colours, game size and speed of the sprite himself (no boring references to a certain Jap hedgehog here) look set to make JP3 a real favourite with the younger market

Publisher: Millemium
Arriving: June/July



So the moon is made of cream cheese eh? This map plotting James' progress is far more suggestive of ice cream cones, but hey – it's fiction, right? Progression through the levels is akin to the MacDonalds-land system where a choice is offered



James is faster than an Ethiopian dog in a Winalot factory – allegedly the fastest sprite on the Amiga. Many of the items he comes across can now be picked up and used to combat his enemies. Word from Millennium is that the level guardians will be some of the biggest seen – we'll have to see...



Two-player mode sees Finneius Frog (a frog) take joint centre stage as the two battle Dr Maybe together. There's no confirmation as yet, but it's thought that Finneius may also appear in the one player game as a computer-controlled helper.

WEEN

A couple of months back we said we'd continue the Gamer guide to Ween at a later date. Well here it comes...

Sanctuary

Take the necklace and the glove. Click on the chest and use the glove on the scary spiders. Use the glove once more on the heart and then in turn use the heart on the right-hand statue.

Use the chalice on the scales and click on the statue head. Click on the tapestry and take the mirrors. In the oriental vase, you will find a key to pick up.

Click on the passage. Use the mirrors on the cracks and then use the key on the handy lock and exit the room.

Garden

Use the bag from the left-hand corner of the screen on the snake. Click on the link and use the bag containing the snake on the mongoose. Use the sword on the larch tree and take the root from the bottom left hand corner.

Use the root on the resin and then use the resin on the monsters. Use the pipe on the water and the pearls on the basin. Use the digitalis on the basin.

Use the femur from the root of the tree on the basin. Use the mixture on the queen and transform your pipe into a sword. Use the sword on the rope to exit.



The horned god looks down as you enter the sanctuary

Staircase to Beach

Use the basin on the resin and then use the resin on the flower. Use the horn on the wood. Now use the liana, which is found on the rocky peak situated in the centre of the screen, on the horn and wood. Use the pick on the stain under the rock which is in the bottom left-hand corner of the screen. Use the pot on the spring and use the water on the mushrooms.

A stone area now appears. Use the stone on the bird and then click on the eye of the skull and the worm. Use the worm on the mushrooms and exit.

On the Beach

Click on the monster and take the strawberries. Take the flute and call your old friend Urm. Give him the strawberries. Use the gold on the monster and take the haversack. Use the oar on the notch at the back of the boat and use the net on the sea. Use the sword on the fish and the eggs on the spider. Take the sail and use the sword on the bamboo. Now use the bamboo on the boat and the sail on the mast. Use the hammer on the boat ribs and put them in the boat. Click on the coconut tree and use the coconuts on the lobster pots, then in turn use the lobster pots on the boat ribs.

Boat

Use the hammer on the padlock, click on the hold and take the tar. Use the pipe on the bottle and take the cork and use it on the tar. If necessary, bail out with the cauldron. Use the tarred cork on the hole and use the hammer on the cork.

Volcano – Part one

Use the key on the lock and enter the cabin. Take the shovel and exit. Use the shovel on the sand until you have eight holes. Use the sword on the oyster and a pearl appears. Take the pearl, the eye, the fish bones, the diamond jewels, the sandal and enter the cabin.

Call Urm and give him the strawberries. Give the old man the gold, ecu, eye, fish bones, diamond, sandal, jewels, pearl and the ingot. Now use the sword on the planks of wood at the back and exit.

Jungle

Take the sword and cut the branches on the right and the curved branch on the left. Click on the bushes with the sword. Click on one of the holes



Blimey, my mother told me about men with droopy moustaches



You are nearing the end of your quest and a meddling old duffer is in your way



and the Orivor appears. Take the gold and give it to him. You will receive a rope from the Orivor. Use the rope on the curved branch and use the bow on the walnut. Use the pipe on the feathers and then use the feathers on the arrows. Use the bow on the walnut and then the sword on the walnut.

Jungle – Part Two

Use the cane on the eye and then click on the old man. Call Urm and once more give him the strawberries, in return he will give you some gold. Give the gold to the old man and use the cane on the eye. Collect the red currants on the left and give them to Urm. Use Urm on the old man and take the feather and use it on the chest. Now you have to prepare the growth potion.

Place the pollen and venom in the cauldron. Use the potion on mushrooms and collect the truffles. Prepare yet another growth potion and use it on the grass at the back to the right of the ruby.

Collect the camomile and prepare the drink by mixing the truffle and the venom in the cauldron. Use it on the ruby. Use the cauldron on the water, place the camomile in cauldron and the cauldron on the hearth. Use the cauldron on the worm and then use the worm on the mushroom.

Exit the screen. Use the sword on the bush and use the pollen on the quartz. Click on the flower and take the pistil. Prepare the drink by mixing the truffle and the pollen in the cauldron. Use it on Borgol. Click on the ant on the leaf. Use the pistil on the ant.

Take three grains of sand and the axe. Prepare the drink and use it on the statue. Lower the lever and exit. Click on the mechanism, use the axe on the orifice (ouch!) and lower the lever. Take the key and exit. Use the key on the lock and prepare a transforming drink by mixing the truffle, pollen and the venom in the cauldron.

Use it on the grill. Use the venom on the snake and prepare the drink and use it on the ruby. Go and fetch the water from the other screen. Fill the cauldron with water use it on the flames and then exit.

Entrance to Volcano

Take the bowl and click on the ornament on the statue. Use the sword on the ornament and collect the jewels. Use the sword on the hole left by the ornament four times and prepare the evil drink. Use on the ruby and take the jewel. Click on the niche on the far right and click again four times. Now use the bowl on the glue. Follow these steps:



It's the boat, but how can you get it on the water?



You see that plant? That's very scary that is!

1 Prepare the energy drink and use on jewel.
2 Use sword on crack at bottom left.
3 Take the firefly and use the glue on it.
4 Use firefly and glue on the dark niche.

Take and use the twig on the opening of the statue's pipe. Take the jewel and repeat steps one to four. Next use it on the niche of the pillar, to the left of the first one.

Use the copper ball on the hole and re-take it. Take the jewel and once again repeat steps one to four. Next, use it on the niche of the pillar at the back on the left. Take the cracked jewel, put the glue on it, use it on the broken jewel and again repeat steps one to four.

Use on the middle niche on the left. Collect the fallen jewel near the drawbridge and repeat steps one to four. Next use it on the foreground on the left. Next, go to the pillar back on the left and turn the handle once.

Middle pillar on left – turn handle twice. First pillar on left foreground – turn three times. Pillar on far right foreground – turn four times. Pillar at the back on the right – turn five times. Take the bow and fire arrows on the illuminated letters K–R–A–A–L.

Prison

Take the heart from the bones and the nail on the wall by clicking several times with the mouse. Click on the lock and put the nail in the sixth hole of one of the locks.

Click on the needle and collect the pin from under the bar that lifts. Put the pin in the sixth hole of the right-hand lock (right – nine o'clock). Put the nail in the third hole of the left-hand lock (left – three o'clock). Now click on the two needles.

The End

Click the levers on the machine. Click each lever four times from left to right. Click on the engravings and press the letters D J E L. Click above the niche and then place the heart in the opening. Now take the knife.

Grab the bamboo at the bottom right of the machine and use the knife on it. Use it again to get the flute. Call Urm, collect the stone and put it in the hole of the engraving. Click on A Z E U L I S S E. Take the statue from the right-hand niche and use it on the niche above the engraving. Use the three grains of sand on R E V U S S.

You have now completed Ween.



Can you dig it? It looks like someone has

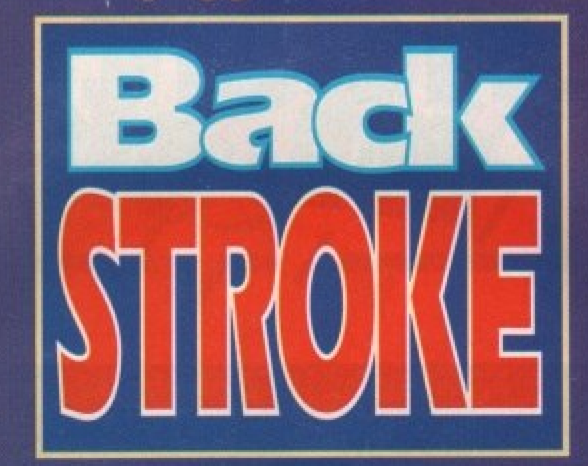


It's that interfering old bloke! Leave me alone and go away

Here we are again for more rear-end fun and frolics. It seems as though many of you have finally realised that we do like to receive mail here at Gamer, and we've been getting a steady flow of sad correspondence from lonely souls.

Keep it coming – the Gamer badges have been misplaced after a sojourn to London, but Ben Styles has been locked in the cupboard for several days now (that explains it then – Ed) and he's damn well staying there until he finds them.

Pull on your cap, strap on those goggles, and do the



Mr Memory

During the recent International Computer Show at Wembley, Paul was accosted by a young lady from Sheffield – whose name escapes him – stuck at the end of level three on Zool.

He carefully noted the details of her plight, took down her address and promised to be in touch. But being stupid he lost all the details, so here's your answer, Ms X from Sheffield, with our apologies.

Bounce on the fruit cans to gain an extra life, and when the Boss appears, shoot the (indestructible) alarm clock to wake the banana.

Stay to the left of the screen while shooting the banana, and if you should die, simply run from the restart point shooting as fast as you can. It's a bit of a pain, but not too difficult with practice.

Breeding problems

Help! Help! Help! I am stuck on Alien Breed 92 – I have tried everything but to no avail. You are my last chance, a cheat would be handy.

Endaf Evans
Somewhere unreadable in South Wales

You're a very sad man Endaf and no mistake, and we've all had a really good chortle over your inadequacies, but we're here to help, so here are a couple of codes for the later levels.

Level 6:	LAEEA
Level 8:	UYTTA
Level 10:	PPEAB

Incidentally everyone, if you manage to record a high score on AB92, type in some of the following, for a bit of a laarf!

LEEDS UNITED
AMIGA COMPUTING
MARTYN BROWN (Team 17 Big Nob)
CHEAT

David Berry from Bristol sent us these and loads more. Thanks Dave – now go get a life.

Most Sensible

The Gamer stand was absolutely inundated during the recent show at Wembley, with our Sensible Soccer competition – run in conjunction with Renegade – proving a massive success.

Fifty copies of the game and a brand spanking Atari Lynx were up for grabs to the best players, and we did intend to publish the winners in this month's issue, but we've been busy, so you'll just have to wait.

One clue though – if you won by four or more goals (and you didn't cheat with a mate like some little gits did), then don't buy a copy just yet...

Yoo R rong!

Not everyone agrees with our reviews all the time. Lee Hughes (9) from Bootle thought Biff was spouting pap in his review of Street Fighter 2, and promptly sent us in his own:

"The best beat-'em-up is now here on the Amiga – the best computer. SF2 is fast and has got brilliant sound, gameplay and lastability – anyone will love this.

"You may control one of the eight characters listed, and on two-player mode you can even choose your background.

"If you defeat every opponent there are another four baddies to see off, and three bonus rounds which involve smashing cars and punching barrels.

"An excellent game – if you don't get it you'll be sorry – 97 per cent."

Thanks Lee. The only answer we've got is – Body blows.

Zzzzz...

Blimey – a cheat for Sleepwalker already? Yep, just enter the following on the title screen (no spaces)

DINGADINGDANGMYDANGALONGLING-LONG,

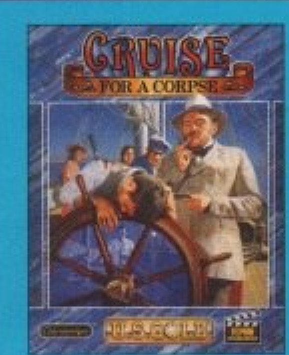
then during the game press Tab for full everything, and Return to skip levels.

Bahrain bally-hoo

We got a rather long letter from Damon McCree, who for some bizarre reason has taken it upon himself to live in Bahrain. His basic problem is that he's crap at Cruise for a Corpse. He didn't put it quite like that, but he is.

In the office of Niklos Karaboudjan there are four books carrying the letters N, I, C and L, and Damon can't glean any kind of information from them.

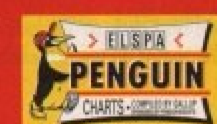
We can't either, because we're crap too, but if anyone can help (and for Heaven's sake, make an effort!), let us know and we'll publish it for Damon. Ta.



Who can solve the riddle of the books, and who gives a toss anyway?

THE CHARTS

• *Note that from this month we are publishing the full price chart.*



1	Sleepwalker	Ocean
2	Premier Manager	Gremlin
3	Street Fighter 2	US Gold
4	Piracy	ICE
5	Sensible Soccer 92/93	Renegade
6	Pinball Fantasies	21st Century
7	Nick Faldo's Championship Golf	Grandslam
8	Indy Jones/Fate of Atlantis	US Gold
9	Campaign	Empire
10	Assassin	Team 17
11	No Second Prize	Thalion
12	Zool	Gremlin
13	Archer's Pool	Virgin
14	Sabre Team	Krisalis
15	Project-X	Team 17
16	Wing Commander	Mindscape
17	The Humans	Mirage
18	The Dream Team	Ocean
19	Bill's Tomato Game	Psygnosis
20	Lemmings Double Pack	Psygnosis

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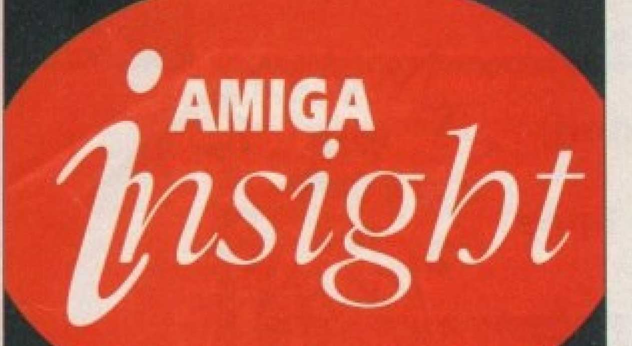
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Gem

Some time ago I was asked the following question: If ARexx has an Upper() function to convert strings to uppercase, how come it doesn't have a Lower() function to convert them to lowercase?

A good question – after all, since ARexx is used so much for formatting and DOS interfacing, you'd think such a function would be absolutely essential.

Even a trivial task such as converting all the filenames in a directory for neatness's sake would use it, and there are many other more serious uses.

As a matter of fact, ARexx does have a simple equivalent to the Lower() function, but it is hidden. So well hidden, in fact, that it is only obvious once you've had some experience with ARexx. Now, concealed features do not make for happy programming, so let's see how it works.

The only thing you will need is a table of Ascii values, and you can easily generate one using the ARexx code below (values less than 32 are control codes that do not concern us for now). Type the program below, and save it in RAM: as ASCII_TABLE.rexx. You can get a printout by typing rx >prt: RAM:ASCII_table at the Shell.

```
/* ASCII_TABLE.rexx */
DO i = 32 TO 127
SAY i ' HEX   'd2x(i),
' BIN   'c2b(d2c(i)),
' CHAR   '||'22'x||d2c(i)||'22'x
END
```

To convert to lowercase we will use ARexx's bitwise operators, which we have encountered from time to time, notably in the Nov. '92 issue.

I assume that you already know what bitwise operations are, but even if you don't, you can work it out from the examples . In a nutshell, bitwise operations convert strings of characters to their binary representation, and perform logical operations on them in this form.

The basic bitwise operations are the logical AND – BITAND(), the logical OR – BITOR() and the logical eXclusive OR (ie either/or) – BITXOR(). ARexx also offers various other functions for setting and testing individual bits, which we will not look at this time.

Let's look at an example. The Ascii value for the uppercase character A is decimal 65, or hex 41, or binary 01000001. Similarly B is 66, C is 67, and so on. Lowercase a is 97, b is 98, and so on. Consider the two strings abc and CBA.

```
s1 = "abc"  = 01100001 01100010 01100011
s2 = "CBA"  = 01000011 01000010 01000001
       --------------------------
BITAND(s1,s2) = 01000001 01000010 01000001 ie ABA
BITOR(s1,s2) = 01100011 01100010 01100011 ie cbc
BITXOR(s1,s2) = 00100010 00100000 00100010 i.e." "
```

Notice that the difference between the uppercase and lowercase value of the characters is 32, ie hex 20, or binary 00100000. This means that uppercase and lowercase differ by only one bit, and if we set this bit in an uppercase character we will convert it to lowercase! You probably also noticed that the Ascii character for hex 20 is the blank space.

To set any bits in a character we must BITOR() the character with the bits we want set. Try this:

```
rx "say BITOR('aB D','    ') /* four spaces */
```

the above is equivalent to:

```
   01100001 01000010 00100000 01000100
OR 00100000 00100000 00100000 00100000
   -----------------------------------
   01100001 01100010 00100000 01100100
```

As you can see, space and lowercase characters are unaffected by the OR operation, while uppercases get converted.

We can in fact simplify the process even more. The general format for the bitwise functions is BITFUNC(string1,string2,pad). The shorter string is padded with the optional argument "pad". If we specify a zero length "string2", and a pad of a space, then we do not have to know the length of "string1" beforehand:

```
rx "say BITOR('CoNVErt aLL tHiS','',' ')
```

And this can be made even simpler – "string2" and "pad" are optional arguments. If they are not specified they default to the value of a blank space. In our case this is extremely convenient, as we can dispense with All the optional parameters.

```
rx "say BITOR('CoNVErt aLL tHiS')
```

Yes, to Lower(string) all you have to do is Bitor(string)! That's all there is to it. I trust the explanation makes it a bit less of a mystery than it was at the outset.

Interestingly enough, it is not possible to use a similar

'Arping on!

For some time there was a very noticeable absence in the area of ARexx support utilities. There was no easy-to-use graphic programming utility that worked properly under Workbench 2.0.

This was quite discouraging, especially to all the new A500+/A600 owners who would have liked to some ARexx graphics programming.

Sure, there are some excellent tools available like Rxgen.library and APIG.library, but they required a fair grasp of the Amiga O/S programming in general, and Intuition in particular.

The nice and simple libraries (like Rx_intui.library and RexxArpLib.library), which made it easy for anyone to open windows and put graphics on the screen, had strong disagreements with Workbench 2.0. They worked fine with 1.3, but most 1.3 users don't have ARexx.

However all that should now change! Browsing through CompuServe the other day I found the latest (release 3.0) version of RexxArpLib.library, now fully compatible with Workbench 2.0.

RexxArpLib.library is not the easiest library to use – Rx_intui.library holds that position – but it is still very easy.

It will allow you to do most basic graphical operations from ARexx, as well as use the system menus, requesters, gadgets and so on. Wherever possible it will use Workbench 2.0 features (eg the file and font-requesters), and the public screens.

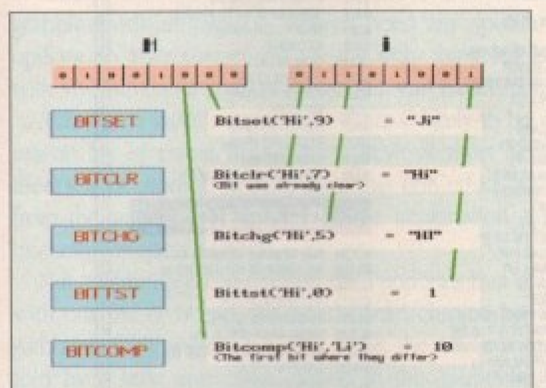
I haven't had time to test it fully yet, but all the new features and improvements look excellent. It is interesting to note that this software is developed under US Government funding at the Stanford Linear Accelerator. I am sure we will be looking at it extensively in the future.

technique to convert lowercase to upper. The function BITAND(string,'','DF'x) will convert the characters, but will lose the blanks. This is due to the structure of the Ascii table.

I will leave it as an exercise for you to why this is so. Hint: 'DF'x is the bitwise inverse of '20'x, ie '11011111'b. The binary inverse of any character is obtained by XORing with a mask that has all the bits set, eg:

```
BITXOR('0010000'b,'11111111'b) ).
```

ARexx makes extensive use of uppercase, and therefore has built-in support for uppercase conversion.



Using ARexx to convert upper case letters to lower case

Alex Gian digs deep and finds an ARexx command that's well concealed from the cold clear light of day



s discovered

Over the next few issues we are going to be looking at interfacing with ARexx. Before we even start, let me say that this can mean a whole lot of different things – we will be looking at some of the main ones.

Perhaps the only common ground between them is that they involve more than one process, that is they link more than one task or program together. Here is a brief summary of the subjects involved:

ARexx Interfacing

1	Software
1.1	Applications interfaces
1.2	Applications and languages without interfaces
1.3	Adding your own interfaces
2	Hardware
2.1	Control of devices
2.2	Control of terminals
2.2.1	Communications
2.2.2	Remote control of other computers

i. Software

We will not involve ourselves with specific application interfaces here. Rather, these will be reviewed separately whenever we review a particular program.

What we will be looking at are ways of controlling applications that don't have specific ARexx interfaces, or languages that don't support ARexx.

If there is sufficient interest, I will also cover the basic principles of adding an ARexx interface in C; however this is an advanced subject and I will not start it if there is no demand. If there is a particular ARexx interface that you would like to see reviewed, or any ARexx software related subject, feel free to write to me c/o "ARexx Feedback, Amiga Computing".

ii. Hardware

I still find prevalent the misconception that ARexx is a special language for controlling hardware attached to the Amiga. There is no such thing of course – any language that can write to memory locations or registers can control hardware.

ARexx got this reputation because it is used as the control language by a lot of video-related equipment, and for a large class of users the Amiga is synonymous with video.

However the reason ARexx was chosen was the superb way it fits in with the system multitasking. The level of control provided is so good it is almost silly. Can you imagine controlling your video camera from within your wordprocessor?

Essentially, any device that can be hooked to the Amiga's ports can be controlled by an ARexx script. The serial port is most likely to be used in communications-related work, whereas the parallel port is more likely to be used for remote control devices such as door-openers, warning systems, robots and the like. The beauty of ARexx is that each port signal can have its own script if need be, and can easily be added or removed from the system. A central script can then co-ordinate the whole operation.

This is a significant advantage over a non-multitasking system, where the complete control program would have to be altered to accommodate any changes.

Furthermore all this can be happening in the background while you continue with your regular use of the machine. I hope to be looking at some interesting ARexx-hardware projects soon.

Finally, it is interesting to note that all the good communication programs and terminals have extensive ARexx support. ARexx will allow you to set up your machine to respond to any event, such as a phone link, so that you can operate it remotely. I have seen more than one BBS system written in ARexx, even if they were fairly basic.

With clever use of an ARexx-compatible terminal (such as VLT or VT100) you can even run more than one computer from your keyboard, each one with its own CLI window.

And they do not even have to be Amigas – any machines can be linked like this, with an ARexx script controlling their communications.

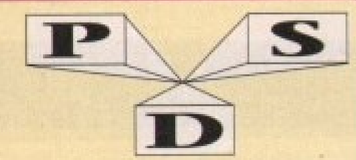
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RocKey revisited

RocKey, the Amiga's first bargain basement chroma-keyer, gets the once over from AC's video expert Paul Austin

As regular readers of Insight may remember, RocTec's latest creation has already made its debut within the glossy folds of *AC*. However, due to the limited space available in the average Insight column only the basics of setting-up and the additional hardware vital for effective use have made it into print.

Before we move onto the imagery available, a quick recap of the necessary kit might be wise. Firstly, a standalone composite genlock is essential and although RocTec recommend their own unit almost any genlock will do the job.

In addition, the genlock lighting is equally important and in order to get anything approaching decent results a plentiful supply of lights including at least one back light plus an additional twin array of frontal floods is a sensible setup.

Apart from the obvious addition of a camcorder and a selection of suitable cabling, that's about it on the kit front. Like most videographic hardware, RocKey doesn't need any specific software to operate so after connecting up the only thing left is to boot-up with your favourite paint package and start experimenting.

Although a basic weatherman effect is likely to be your primary reason for investing in a chroma-keye, it must be stressed that there's a lot more to RocKey than this one effect. As you can see from the selection of images, a little imagination can produce a bucketful of special effects.

Not surprisingly I've opened the Pandora's box of RocKey FX's with our old favourite, the weatherman/chroma key (Example I). Although fairly impressive as a static, the effect is enhanced tenfold by a little animation, which in this particular case placed yours truly on a pulsating fractal backdrop.

As you may have already spotted, a close inspection reveals the image isn't exactly perfect due to the fairly prominent blue keyline on the left of the image. Even with the best possible set-up this edging effect is very difficult to eradicate completely.

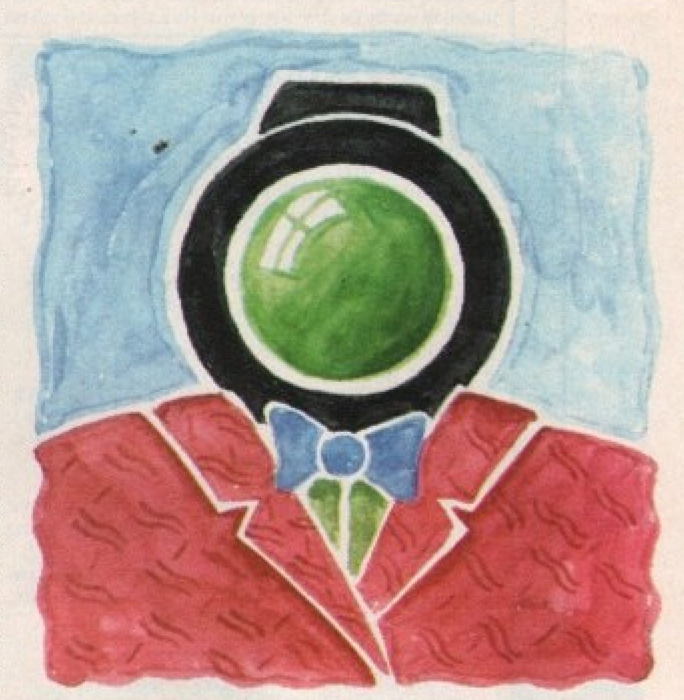
This alone is perhaps the best indication as to RocKey's place in the market.

For the professional/broadcast user such a fault simply couldn't be tolerated and as a result RocKey alas falls firmly into the semi-pro bracket.

The next image (Example II), although perhaps not an everyday option, still lends itself to suitably wacky applications very well – again particularly impressive when animated. Although radically different to the weatherman, in fact the transition between the two is a simple one.

All that's really happened is a basic inversion, with the foreground of the Amiga signal replacing the foreground of the keyed video signal. Simple but effective.

Next up (Example III) comes a much more complex combination of signals which build to form one variant of RocKey's range of sandwich effects. OK, here's the in-a-nutshell explanation of what's happening. As you can see, the foreground video has once again been eradicated by the foreground Amiga graphics. However colour zero of the graphics has been placed as the first image layer, thus providing a window for the graphics that have been key inverted on the foreground video while the background key signal itself remains clear.



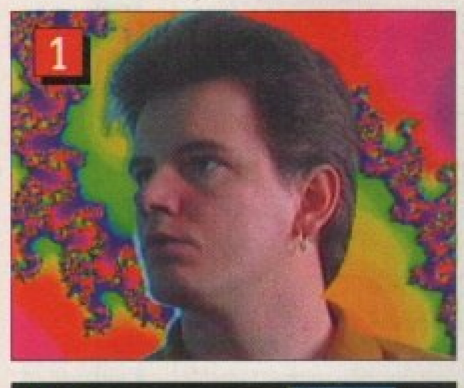
The overall effect is a keyed silhouette which picks up on foreground Amiga graphics while apparently sliding between a sandwich of the key itself and colour zero. OK, I know that sound confusing but it's very easy to achieve in practice – honest!

As you've probably guessed, the next image (Example IV) is yet another sandwich but in this case the foreground video is back as a weatherman while colour zero remains as before. However the foreground Amiga graphics have taken on the third background layer which in effect produces the familiar weatherman but this time through definable windows. Finally we arrive at my personal favourite which provides a perfect example of what a little experimentation and rule bending can produce. In this example inaccurate keying actually enhances the image.

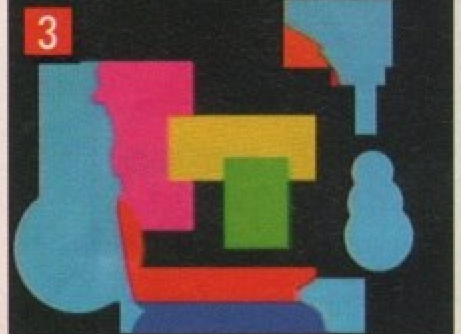
Although essentially a bog standard overlay that could be created on any genlock via a 50/50 mix of the Amiga and video signals, Example V has been enhanced by RocKey partially chroma keying the foreground video signal which provides the effect of shadowing.

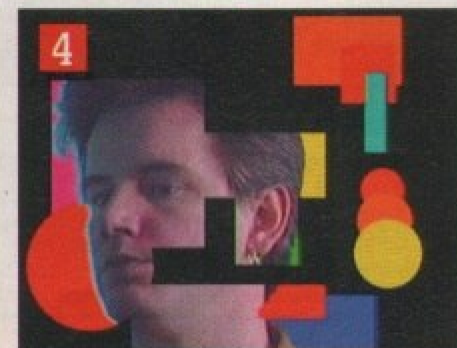
In my opinion this particular image is a classic example of what RocKey is all about. Although the unit does have its limitations, its pure flexibility still makes it a viable investment for the well-off enthusiast/semi-professional.

Supplier: First Computer Centre
Tel: 0532 319444 ● Fax: 0532 319191
Price: £369.99











Intuitive communication

Margaret Stanger takes a look at Intuition window events for new C programmers, and presents a screen saver program

Active Intuition windows communicate with incoming input events via two separate message ports – a WindowPort for window events (as demonstrated last month) and a UserPort for IDCMP events.

Each IDCMP flag in the NewWindow data structure represents an event that a program could be informed about, by a message which includes the event's class and code.

The main feature of an Intuition program is usually a polling loop, which waits for an event to occur and interprets the associated message.

The demonstration program looks at four event classes – the closing of the window, the pressing of a key, the pressing of a mouse button, and the passage of time.

The main polling loop of the demonstration program processes each signal in the UserPort; if a message has not been received, a background activity can take place. If a message has been received, the program must store the message class, and its code, in its own variables.

The program can then reply to the message, and release the memory for the next incoming message. Each class of event can trigger a different activity. The WINDOWCLOSE event class triggers the setting of a flag to inform the program to break out of the polling loop and continue with the rest of the processing.

The MOUSEBUTTONS event class occurs when a mouse button is pressed. The demonstration program just registers the event, displays some text in the DOS window and continues processing.

Keyboard events occur when a key is pressed; there are two classes, VANILLAKEY and RAWKEY. For a VANILLAKEY event, the code returned in the message is the Ascii value of the key that has been pressed. For a RAWKEY event the internal key code would be given.

The program can detect when the Escape key is pressed, the RAWKEY event will have key code 0x45. Other RAWKEY events result in a line of text in the background window.

Intuition has its own interval timer. An INTUITICKS event occurs about three times a second – counting these events could measure the passage of time between other activities.



Competition

There must be many readers who can write a better screen saver program than the one featured below. The programming page is running a competition to find the best screen saver written by an *AC* reader.

The winning program must be economical with disk space, so that it can be published on the CoverDisk. The screen saver should be a short standalone executable program, written in any computer language for the Amiga.

The winning program will be included on the next available CoverDisk, and the author's name will be published in the magazine. An author who sends in the most tasteful, or the most original, or the most irritating, screen saver will also be "mentioned in dispatches".

Please send entries, on disk, to me via Amiga Computing by May 31 1993, and watch out for results at later date. If you want me to return your disks, include a stamped addressed envelope.

Save our screens!

When the same bright, non-moving image is regularly displayed for any length of time (months or years), it could damage the monitor screen to some extent.

Screen saver programs have been created to give the screen a rest from displaying the current window contents, if the window has no input events for any length of time.

The demonstration program uses some commands from the Amiga Graphics library to change the screen background colour, plot a few stars, and clear the screen.

The WritePixel() command plots a point in the foreground colour at the chosen position in the window's RastPort, the SetRast() command fills the whole window with the given logical colour.

The address of the RastPort can be obtained from the Window structure. The command SetRGB4() will change a logical colour in the screen's ViewPort to new red, green and blue values. The ViewPort address can be obtained from the Scren structure or from the ViewPortAddress() command.

To make sure that the program does not always plot the stars in the same place, and wear out the same bit of screen, the star positions must be random.

Fortunately the C library has a pseudo-random number generator that produces random-ish numbers.

The C library routine rand() returns pseudo-random numbers in a range between zero and the maximum long integer value. The routine does some arithmetic on the last number it generated, and returns a new number to the calling program.

The new number is the basis or seed when the routine is next called. When rand() is called for the first time, the seed has the value 1. To avoid the same sequence of random numbers each time the program is run, the C srand() command can be used to seed the random number. The input to srand() is quite often the number of seconds or micro seconds from the system clock.

When the main window is ignored, the screen slides down, revealing the previous window. A borderless window with a black background is opened, and slides up into place. Random stars are plotted on the screen – after a short time the screen is cleared and the foreground colour changes for the next batch of stars.

A new star is plotted for each INTUITICK event, but they could have been produced as a background activity. If a key or mouse button is pressed, the second window is instantly closed, and the main program continues.

NEXT MONTH

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An exclusive report on how Amigas are embellishing some of the top TV prgrammes

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- *Big Alternative Scroller II, the very latest in home video titling software*
- *Bars and Pipes Pro II, the MIDI multi-media heavyweight*
- *Brilliance, exciting new AGA package to rival DPaint 4*
- *ClariSSA, awesome high speed animation package*
- *And much, much more*

Don't miss the brilliant June Amiga Computing. It will be on sale on May 6

Sequencers

KCS Level II v3.5

Tape recorder-style main screen. Real-time Tiger graphic editing environment offering complete control over all Midi data. Quickscore notation system. Automix real-time software mixing plus programmable variation generator and master editor providing the most comprehensive variation generation available via 16 screens of editing tools and definable variation parameters.

An all-round pro product which offers the most powerful and accurate sequencing environment on the Amiga.

Price: £279 ● Distributor: Zone Distribution ● Phone: 071-738 5444

Bar & Pipes Professional

Pro Midi product with unlimited tracks, built-in notation, software mixer, graphic editor plus an open-ended architecture which allows the addition of add-on sound processing tools plus simple integration of complementary products in the Blue Ribbon range.

Highly recommended in all departments but especially useful for multimedia and DTV applications. Bar & Pipes Pro 2 is about to be released, making it arguably the most powerful package on the market.

Price: £299 ● Distributor: Zone Distribution ● Phone: 071-738 5444

Tiger Cub

Although limited to just 12 tracks, Tiger Cub is still a viable investment with a proven track record plus real-time graphic editing and Quickscore notation printing.

Although rather superseded by more recent releases Tiger Cub nevertheless offers a good introduction to the Dr T's family at a price the beginner can afford - just...

Price: £119 ● Distributor: Zone Distribution ● Phone: 071-738 5444

Sequencer One Plus

Offers very simple adjustment of Midi data, whether it be note, control, or program change, thanks to the unique Diamond point-and-click system which makes its editing environment extremely easy to use. A very good basic sequencer offering all the essentials if perhaps a little lacking on frills. For the beginner or occasional user it's the perfect compromise of power and ease of use.

Price: £59.90 ● Distributor: Gajits Music Software
Phone: 061-236 2515

MusicX

Two hundred and fifty tracks available plus librarian, protocol, filter and keymap editors. Like all the sequencing packages mentioned, MusicX is happy to process Amiga samples in addition to normal midi data.

Although something of a golden oldie in sequencing terms MusicX is undoubtedly the best value package on the market and offers a great opportunity for the beginner to test their musical ability prior to investing in a more modern package.

Price: £24.95 ● Distributor: Silica Systems ● Phone: 081-309 1111

Notation

The Copyist DTP

The Amiga's only publishing quality notation package capable of holding 100 pages/scores with option to output direct to laser or PostScript-compatible printer. Quite simply all the notation options you'll ever need but perhaps a little over-priced. If you need the ultimate in musical hard copy, its ideal.

Price: £249 ● Distributor: Zone Distribution ● Phone: 071-738 5444

The Copyist's Apprentice

Like its bigger brother, this dramatically cheaper package still offers 16 stave notation with lyrics, a variety of fonts and like its predecessor will auto-read Midi files which can then be printed direct to a 9 or 24-pin printer.

Price: £115 ● Distributor: Zone Distribution
Phone: 071-738 5444



The Midi guide

Paul Austin provides the great Insight shopping list, all the best in Amiga Midi in a nutshell, from sequencers to sychronisers, notators to non-living musicians...

Miscellaneous

Super JAM

The musical talents of six virtual musicians combine to provide an automatic song generation system which produces instant backing tracks with the aforesaid virtual band taking their lead from a selection of supplied and add-on styles.

Although not of great use to inspirational musicians, Super Jam can be an invaluable tool for commercial musicians who are often called upon to produce large quantities of lift music quickly.

Price: £99 ● Distributor: Zone Distribution
Phone:071-738 5444

Phantom

Phantom offers a studio quality SMPTE/Midi timecode generator/reader which can be used to sync KCS and Tiger Cub to any SMPTE or Midi timecode-compatible hardware.

Obviously Phantom is aimed at the high-end market but nevertheless offers a vital link between Dr T's software collection, the world of broadcast-quality DTV and high end studio hardware.

Price: £275 ● Distributor: Zone Distribution
Phone: 071-738 5444

Sync Pro Plus

Although not shipping in the UK as yet, Sync Pro Plus is available in the US and on special import. Essentially it fulfils the same role as Phantom but is tailored towards the Bars & Pipes Professional environment.

Although untried, the existing affinity with DTV that Bars & Pipes enjoys should reflect favourably in this new SMPTE/Midi generator.

Price:: To be confirmed ● Distributor: Zone Distribution
Phone: 071-738 5444

A net result!

Phil South looks deep into the Internet and singes his eyebrows on Burning Chrome

First of all, hi there. You'll probably remember me if you spend any time reading the Amos column over the page. As well as being an Amos buff I also spend a lot of my time on the various computer networks both in the UK and abroad, so month by month I'll be bringing you the best of what's new in the world of comms. Anything goes really, as long as it's about connecting your Amiga up to a modem or a serial link, I'm your man.

Ever since CIX in London got itself an Internet feed I've been an avid fan. In case you missed it, Internet is a vast network spanning the globe covering everywhere from New Zealand and Australia to Europe and the UK and even the US and Canada.

You can send mail to anyone in the world who's on the Internet, and also get files and log on to far distant systems – all for the price of a call to London (or wherever your Internet gateway is situated).

I use CIX myself and I'm very happy with it, although a similar service is available through Demon Internet Service. For the price of a call to CIX I can log on to the Cleveland Freenet in the USA, which is another sub network of computers centred around Cleveland Ohio.

I can log on to and use The Well in San Francisco, and access a bewildering number of systems all over the world for maritime, weather and sports information. It's a mind-blowing service and it's very handy if you like to download stuff, which I do.

Internet has something called FTP, which is short for File Transfer Protocol. You can log on to a system in the US, Germany, Japan or wherever, and get the remote system to send a file to your local system, in my case CIX. Once it's on CIX I can download it to my computer, which is very handy for getting the latest Fish Disks. There is one Internet FTP site called wuarchive.wustl.edu which has a pile of Amiga software so big it would choke a killer whale.

There's even a site called ux1.cso.uiuc.edu which allows you to download individual files from Fish disks, so if it's only one file you're interested in, not the whole disk, this can save you a lot of time and money.

So anyway, I'm totally besotted, and I can't wait to get back on to do some more exploring. All this Internetting does come with a public wealth warning, though. Spending up to an hour exploring the vast untrammelled wastes of the Internet can burn a hole in your pocket as well as your brain, so plan your adventures carefully and keep your online time as low as you can. Another place I've been visiting a lot lately is Burning Chrome, a very neat little BBS which specialises in Amiga stuff, although it has a few other things as well. Of particular interest is the very new PD which seems to spring up on the board almost every day, that and the interesting Fidonet feeds.



The Area list reveals some very good file areas, including: General, Text Files, Free Files, AM Reports, Communications, Workbench and CLI Utilities for both 1.3 and 2.04/2.1/3.0 machines, Disk Utilities, Archivers & Compactors, Editors, Virus Utilities, Pictures in IFF, GIF and JPEG formats, Music Utilities, Tracker Modules, Midi files, Programming in all languages, plus the Fish Disks, TBAG Disks 1 to 100 plus all the usual TrapDoor and DLG Utilities for other sysops to employ in their own BBSs and a wealth of FidoNet and UseNet Files.

There are some online games too like MafiaDoor where you run a crime syndicate in old Chicago; Contris!, a BBS version of Tetris; and Wanderer, a strategy maze game where you play a spider.

All in all, Burning Chrome is a very well run and useful Amiga board, and one I'll be visiting for some time to come.



The excellent Burning Chrome BBS

```
Port 29, Goofey.

login: cix
Welcome to - The Compulink Information eXchange
Europe's Most Advanced Conferencing System
Provided by:
CIX
Suite 2, The Sanctuary
Oakhill Grove, Surbiton
Surrey KT6 6DU
Voice: 081 390-8446
HST-14.4K, V42bis MNP 5 - 32 lines
081 390-1244 Courier HST DS+ V32bis, HST-14.4k, V42bis MNP 5 - 26 lines
081 390-9787 Hayes Ultras V32bis, Hayes 9600, V42bis MNP 5 - 4 lines
081 399-5252 Tricom Modems with V21 V22 V23 V22bis MNP 5 - 14 lines
081 399-3468 Dat Hayes Ultras V32bis, Hayx V24 ISDN Terminal Adapter with V
2342 1330 0310 is our NUA for PSS, or X25 access - 10 chans
cix.compulink.co.uk is our address for Telnetting into CIX - 10 users
If you type "qix" instead of "cix", this screen will not be displayed
CIX Version 1.410 4/11/92
Copyright (c) CoSy Conferencing System, University of Guelph, 1984
Portions copyright System, University of Guelph, 1984
Por 29, ©Compulink Information eXchange Ltd, 1985-1992
You are on line: ttypx
Nickname? (Enter 'new' for new user)
NComm 2.0    CIX 9600    12:33 00:00
```

Logging on to CIX

FTP sites to try

uunet.uu.net
Contains files from: Comp.sources.3b1, opinions, comp.sources.amiga, nutshell, comp.sources.games, faces, comp.sources.misc, mach, sco, comp.sources.reviewed, news, comp.sources.unix, sun-fixes, comp.sources.x.

ux1.cso.uiuc.edu
Contains files from: Amiga, Fish, Amicus, CUCUG.

uxc.cso.uiuc.edu
Contains: Games, Hitch Hiker's Guide to the Internet, recipes, GIF, GNU, RFC, IEN, and much more.

wpi.wpi.edu
Files about: anime.

wuarchive.wustl.edu
Files from: comp.binaries.amiga, comp.sources.amiga, comp.sources.games.

AMIGA COMPUTING

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Live randomly

Phil South proves that not only can you create random numbers, but also people and planets for your games

Random numbers can be very useful things to harness if your games are a bit more than shoot-'em-ups. What if you're an adventure game buff, and you need to create worlds and people which even you don't know about?

The trouble with writing games is that you get very little pleasure yourself from playing them, unless the experience can be randomised in some way, so that you enjoy it as much as the next man.

If a game like Elite, for example, was the same each time it was played, the writers of the game would be able to play and finish it pretty much in an hour or two. As it is the circumstances change each time the game is run, so anyone can play and have the same chance of winning.

Similarly, in any kind of simulation game, unless there is a random element, you won't have any kind of chance in the game, and the product of such a venture would be a very boring simulation which ran along similar lines every time it was played.

So this month let's look at ways of making the initial circumstances of your simulation and role-playing games as different as possible.

The standard random number generator in Amos is the RND(X) statement. This means that a number, usually an integer, is created within the range or between 0 and X. Random number sequences are seeded at the start by using:

```
Randomize Timer
```

which feeds the randomised numbers with a seed value equal to the value of the system variable TIMER. Timer clocks the elapsed time that the computer has been on, and so you can reset it with:

```
Timer=0
```

and then anything after that (if divided by 50) can be timed in seconds. Seeding random numbers with Timer ensures that each time the random number is created it is different. Otherwise your random numbers stand a chance of being non-random.

Random numbers are needed in a whole load of game types from card games to full-blown graphic adventures. You use the standard format, but obviously you have to be creative and adapt the amount or range of numbers to suit the circumstances.

Probability comes into it a lot and in a dice game for example you can make it just totally random, but pairs of dice are weighted (in a probability sense) towards producing seven, so you have to simulate that too if you want a true simulation. So the original idea is something like this:

```
Do
   D=Rnd(12)
   Inc A
   Print "Throw";A,D
Loop
```

but in this there is an equal chance of getting a seven as getting, say, 12 or one. To trim out the chances of getting numbers which are too high or low you can add a bit of weighting to it like this:

```
Do
   D=Rnd(5)+Rnd(5)+2
   Inc A
   Print "Throw";A,D
Loop
```

which clusters the numbers produced around the seven. Roll playing games which use dice can be easily converted to Amos using this technique.

Random numbers are one thing, but what about random letters? One of the quickest and dirtiest ways of cranking out random text is using the CHR$(x) where x = the Ascii code of the letter.

This program shows you all the Ascii codes from 0 to 255:

```
For A=0 To 255
   Print Chr$(A);" ";
   Wait 2
Next A
```



Obviously feed the CHR$ command with a random number and you're into it. But the letters don't start until CHR$(65), which is capital "A". Easy, just add 65 to the random number within the CHR brackets, and you're away.

Try this for size:

```
Paper 0 : Cls 0
Do
   Print Chr$(Rnd(25)+65);" ";
Wait 2
Loop
```

To get all lower case letters, you simply have to change the number 65 to 97 – the Ascii code for lower case "a".

You can combine this knowledge into the following silly, but sometimes funny, program which randomly creates character names for sci-fi role playing games:

```
Screen Open 0,640,200,16,Hires
Paper 0 : Cls 0
Do
   Print "My name is ";
   Print Chr$(Rnd(25)+65);
   For A=0 To 4
      Print Chr$(Rnd(25)+97);
   Next A
   Print " from Planet ";
   Print Chr$(Rnd(25)+65);
   For A=0 To 4
      Print Chr$(Rnd(25)+97);
   Next A
Print
Loop
```

There's much more to random numbers than just pure randomness, and with a little thought you can simulate any naturally occurring phenomenon. Adding a little bit of fractal maths here and you have the option of adding graphics to these random events and allow you to produce some startling graphic effects, which I'll be going into a bit more next month.

Write stuff

If you have an Amos question or nifty routine to share, then please write to Phil South, Amos Insight, Amiga Computing, Europa House, Adlington Park, Macclesfield SK10 4NP.

All change

Ben Pointer looks at some of the changes in the new Pagesetter and offers advice to users



The release of PageSetter3 has opened up the world of both colour and mono professional desktop publishing to the Amiga user on a tight budget.

PageSetter II, for its age and for the price, was a pretty good mono DTP package, but this new version has seen many advances, not all of them as obvious as the ability to use colour.

This month I'm going to discuss some of the major changes to the program that might be causing both new users and upgraders some sleepless nights.

Let's get the hidden change out of the way first – the way PageSetter3 handles Compugraphic typefaces.

For each Compugraphic typeface, PageSetter II required three files to be present in the CGFonts: logical device or on the CGFonts floppy disk – typeface.lib, typeface.metric and typeface.atc.

The program recognised what typefaces were available simply by reading the contents of CGFonts: upon loading.

PageSetter3 no longer requires the typeface.atc file, but now needs a typeface.dat file. It recognises what typefaces are available by means of a file called if.fnt, which, in effect, is a list of available typefaces. The old CGCache: device is no longer needed, and neither is the CGT file.

With PageSetter II you added a typeface to the system simply by copying the three required files into CGFonts: – PageSetter3 requires two of those files to be present (all except the .atc file), plus a .dat file, and the if.fnt file has to be updated each time a typeface is added.

The program that maintains the if.fnt file is called CG_Update and is on Disk 2. When you run this program it reads the contents of CGFonts: – which could be an assigned directory or simply a disk of that name – and then updates the if.fnt file to reflect the typefaces it found in CGFonts:. The if.fnt file gets saved to CGFonts:, in with the typefaces.

So ex-PageSetter II users will need to delete from their CGFonts disks (or CGFonts: device) the CGT file, any CGCache directories, all the #?.atc files , and then run CG_Update once for every CGFonts disk you have.

Files needed

If you don't have .dat files for your typefaces, you won't be able to use them; these should have come with the typefaces when you bought them.

There are several other files that need to be on each CGFonts floppy – the #?.chardata files (used for PostScript printing) and the if.ss file that you'll find on Disk 3 in the CGFonts drawer.

PageSetter3 also maintains a file in the S: directory called fontlist.ps that is an Ascii list of available typefaces so that it doesn't have to keep reading the CGFonts: directory every time it has to put up the Typeface requester. If this file isn't there, the Typeface requester will be empty.

Despite the impression given by the Floppy_Drive_SetUp program on Disk 1, using the "Update your current CGFonts: disk" option isn't good enough to get your old PageSetter II CGFonts disks working with PageSetter3 – all it does is copy an updated if.ss file to CGFonts:, it doesn't create the necessary if.fnt file; to do this you need to run CG_Update.

The if.ss file, in case you were wondering, is a kind of character look-up table that tells PageSetter3 the characters that are available in standard Compugraphic typefaces.

Apart from colour, the other new obvious additions are the Article Editor (AE) and the Graphics Editor (GrE).

When using the hotlinks from PageSetter3 to these separate programs, the editors are multitasked. PageSetter3 is still running. So if you haven't got much memory, chances are the hotlinks won't work or the machine will suddenly crash.

PageSetter3 alone requires 1.5Mb of RAM, and I've found that 2Mb is not enough to successfully multitask with GrE. With 2Mb the hotlink to AE just about works, but to use both hotlinks comfortably 3Mb is a more sensible minimum.

A feature of GrE is that it was designed to be used with screen-sized graphics, so if your picture is wider or higher than a standard Amiga screen size (a tall scanned image for example), GrE may import it OK, but you won't be able to get at any areas off to the right or below the bottom of the display, and when you send it back to PageSetter3 these areas may well be corrupted. So it's best to use GrE only for simple screen-sized (or smaller) graphics.

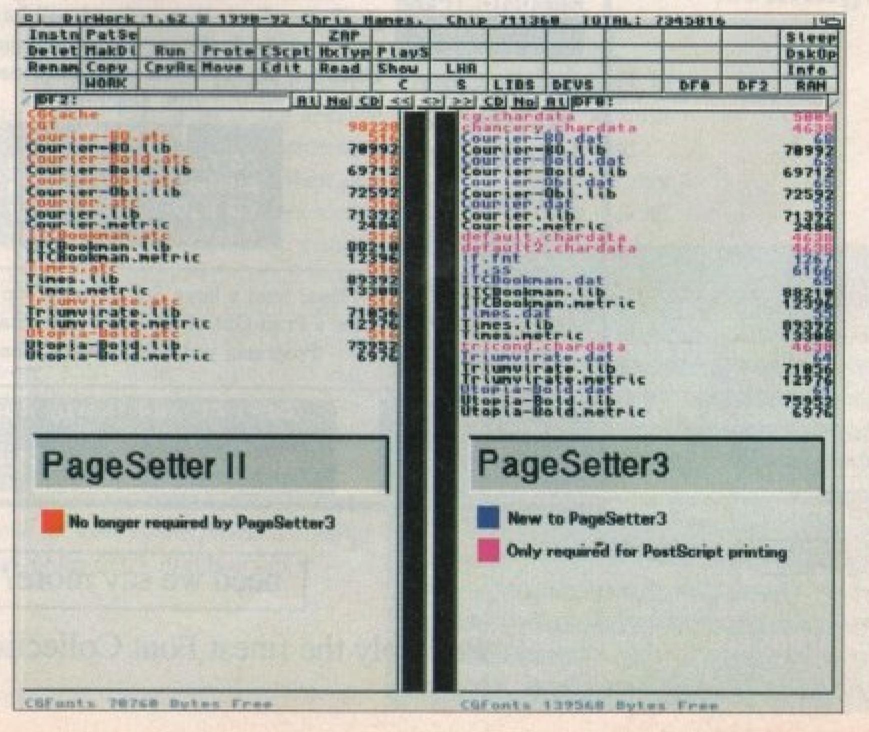
AE has a spelling checker that can only be used if you have enough memory into which it can copy its dictionary. Again, if memory is tight spell-checking in AE may fail and/or the machine may crash.

Even the apparently simple job of transferring text from PageSetter3 to AE and back again requires memory, so it's theoretically possible to send some text to AE, add tons more text, and then not be able to send it back to PageSetter3.

Whinge not at PageSetter3 or AE – if more memory is required, more memory is required.

Easier fonts

The FontManager program provided, which converts PostScript Type 1 typefaces to Compugraphic format, automatically updates the if.fnt file after every conversion, so there's no need to run CG_Update after using FontManager.



Your old PageSetter II CGFonts floppies will look rather like the listing on the left; a new PageSetter3 CGFonts floppy would resemble something like the listing on the right. If you don't have .dat files for your old PageSetter II Compugraphic typefaces you won't be able to use them

Looking after your CDs

Julius Alexander wipes his CDs clean and looks into his short range crystal ball to see what's coming!

If like me your CDTV software collection grows every month, you'll have quite a pile of discs now. As the average price of CDTV titles starts at around £19.99, you'll have a fairly expensive pile!

Contrary to popular belief however, CDs, laser discs and CDTV discs are not invulnerable. Early reports on CD technology stated that CDs were almost bullet-proof, capable of sustaining drops, scratches and tea stains.

I even remember one article saying discs could be broken and glued back together! Now we know of course that this wasn't strictly true.

CDs can be easily damaged and your once proud CDTV software collection can easily become nothing more than a pile of replacement beer mats.

As the saying goes however, every cloud has a silver lining. In this case, it is that CDs are more resilient than most other forms of storage media. You need have no fears about touching the surface of discs or handling them.

So what can you do with them, and is there any way to recover your faulty discs? Well to start with, treat them with respect.

Don't leave them lying around outside their casing or caddy, don't clean them with anything corrosive. You should also watch out for touching them when wearing jewellery, such as rings, that might catch them.

If you do appear to be having problems, all is not lost. A quick clean often yields marvellous results, with previously corrupted data returning to normal and audio soundtracks that jumped and repeated playing as normal.

Never, ever, move the cleaner in a circular fashion around the disk. Unlike vinyl LPs, you should move across the surface from the centre to the outside or vice versa.

But what can you do to repair your discs? Most CDTV instruction manuals make little, if any reference, to maintaining your discs. And none of them, at least none that I've come across anyway, give any solutions to rectifying potential problems. Strange effects in a program, faulty disks and corrupted graphics are all symptoms of dirt, scratches, marks, scuffs or possibly manufacturer failings.



Such glitches on the surface of the disc cause the laser to miss-track. This in turn results in the wrong data being read. For normal audio CDs it was bad enough with tracks repeating, skipping and jumping.

Strangely, scratches that run across (ie from centre to rim) the disc can often go undetected and have no effect on the data. Marks more likely to cause problems are scratches around disc or those take the shine off the plastic – the outer coating of CDs helps concentrate the laser beam.

Many problems can be cured simply by taking a damp cloth with a smudge of washing up liquid and wiping the disc. This will do wonders in many circumstances, removing fingerprints and smears that previously caused the laser to skip.

For more serious problems, such as foreign substances stuck to the surface, take a weak but abrasive cleaner and apply in small quantities. Typical cleaning agents include toothpaste and Brasso.

But only use such agents when all else has failed. These are after all abrasive substances and not recommended for cleaning delicate plastics. They can however, if used carefully, be employed to pull a disc back from the brink of dustbin-ism.

If all is lost and your CD simply won't load, there is one final use. Yep, on those summer evenings, as the sun sets, CDPD makes an ideal frisbee!

● *We'll be taking a more in-depth look at Some of the products coming up for the CDTV in future issues.*

Where the grass is green

Firstly, and of particular interest to a great many people, is the AVM card, which could do for the CDTV what bungee jumping does for Andrex toilet rolls.

For those who don't know, the AVM card takes the standard CDTV colour palette and knocks it for six. Straight over the fence in fact, to where the grass is greener.

Much much greener, because with an AVM card fitted you've got several million colours to play with instead the usual 4,096; you can now see the grass in God knows how many shades! Basically the AVM card increases the available colour palette and the number of colours that the CDTV can display at once.

Even better, it can do this not just with still pictures but also CDXL frames. Although full motion colour feature films are still a way off, the AVM card takes the CDTV one giant step in the right direction.

What's even better is that Commodore are actually working to promote this product. One small step for CDTV, one giant step for Commodore?

Another product bobbing around on the horizon is a new SCSI interface. With the aid of this product you'll be able to plug in hard drives to the CDTV and have a high capacity writeable storage medium.

While this has few obvious benefits to most users, with the aid of the "multimedia" CDTV kit (a keyboard/mouse) it makes the CDTV an interesting potential developer system.

Through the well shaken hands of a distributor this product should make it to a lot of developers. The result will, hopefully, be a lot more CDTV software!

The future's so bright...

Increasingly developers are jumping on the back of CDTV and Amiga CD ROM bandwagon. While writing this column I heard of no less than five CDTV hardware releases. All were slated for release "soon" – more information on some of these later.

Meanwhile, multimedia and CDTV software announcements continue. More games and authoring titles appear almost weekly.

Philips CD-I is progressing, but not as quickly as CDTV. Will 1993 be the year when the Amiga CD-ROM format and CDTV take off? The answer lies here and in *AC*'s news pages over the coming months.

VIDEOMASTER

The Ultimate Multi Media System for your computer. Videomaster is a revolutionary breakthrough in home computer technology combining the complexity of a Video Digitiser with a Sound Sampler in a single easy to use low cost unit, to bring you the ultimate home multi media video/audio editing package.

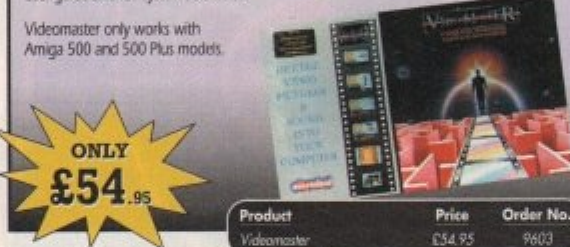
Videomaster will allow you to record monochrome, quarter screen pictures at speeds of up to 25/30 frames per second (Europe/USA) providing ultra smooth playback at high speeds. These pictures can be recorded from the output of a video recorder or directly from a video camera or a camcorder and replayed on your computer screen.

Videomaster can produce great 'grey' scale pictures from any video source with a pause or still frame facility. The colour filters provided in this package will enable the users of video cameras or camcorders to produce high quality still pictures in glorious colour.

Videomaster features a sound sampler as part of the hardware, though the software can be used with external sound samplers. This is supported by a full feature sound recording and editing program within the videomaster software. The Videomaster system also features a video sequencer.

The complete package contains the Videomaster video digitising and sound sampling hardware unit, TRI-Colour filters for colour camera use, comprehensive user guide and full system software.

Videomaster only works with Amiga 500 and 500 Plus models.

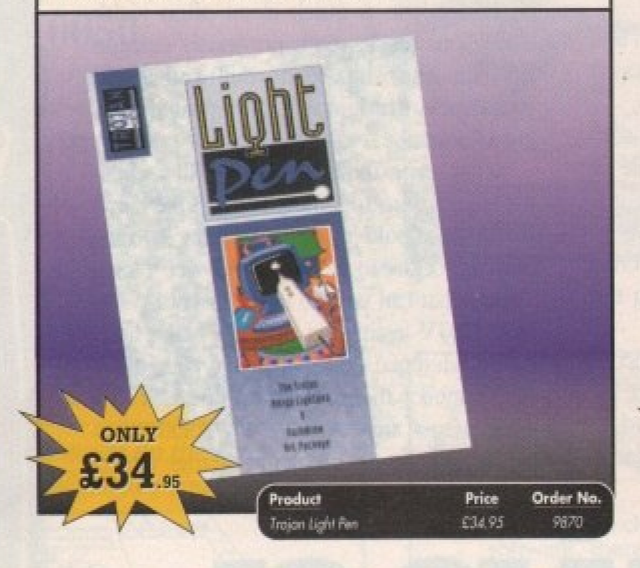


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Wouldn't it be good to really "draw" when using paint and graphics packages? Well now you can, by plugging the amazing Light Pen in instead of your cumbersome mouse. It comes with a specially designed drawing package, Kwikdraw, as well as compatibility software for most Workbench-run programs.



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Product	Price	Order No.
Trojan Light Pen	£34.95	9870

CLARITY 16

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The Editor program provides the user with the ultimate in power and sophistication, packed with features which appear for the first time for any home computer. The fully multi-tasking, window styled editor allows individual samples to be loaded into the computer and edited separately.

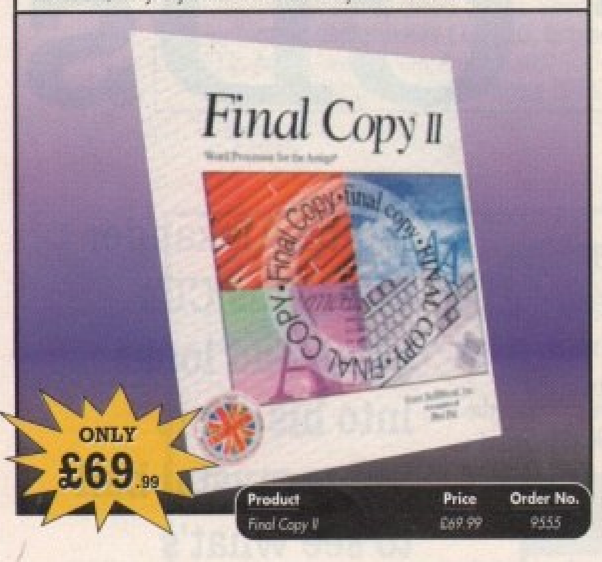
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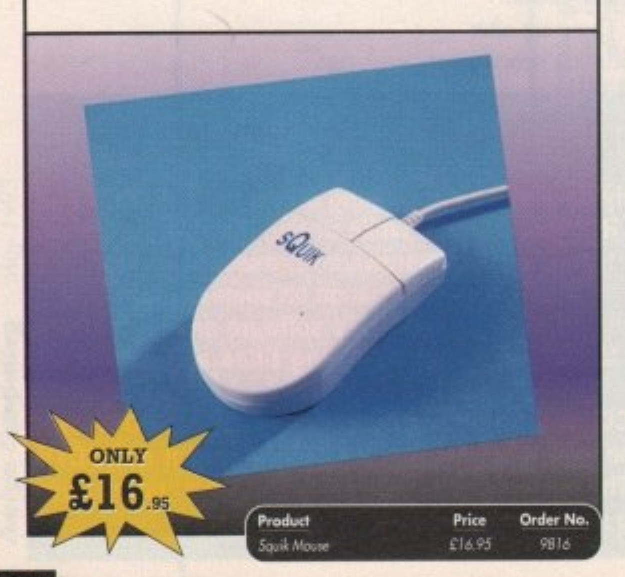
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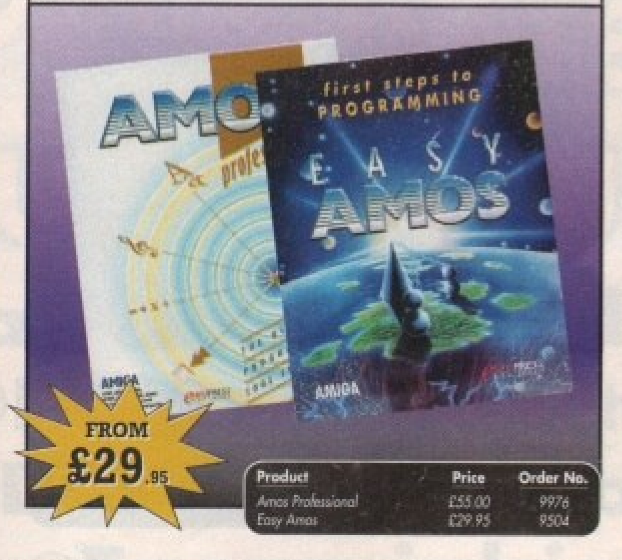


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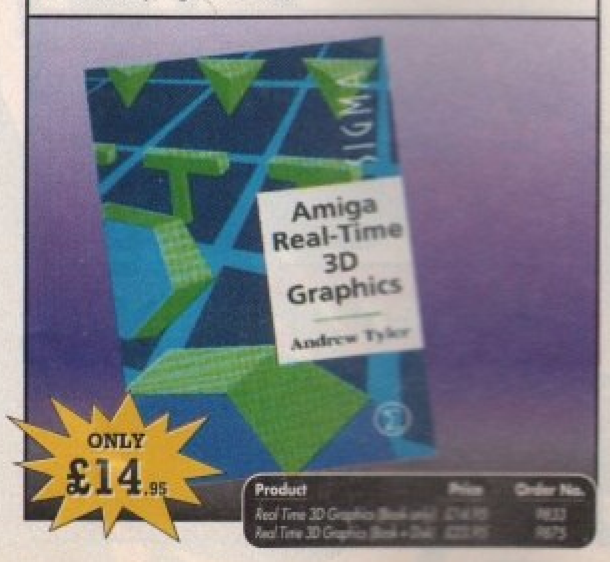
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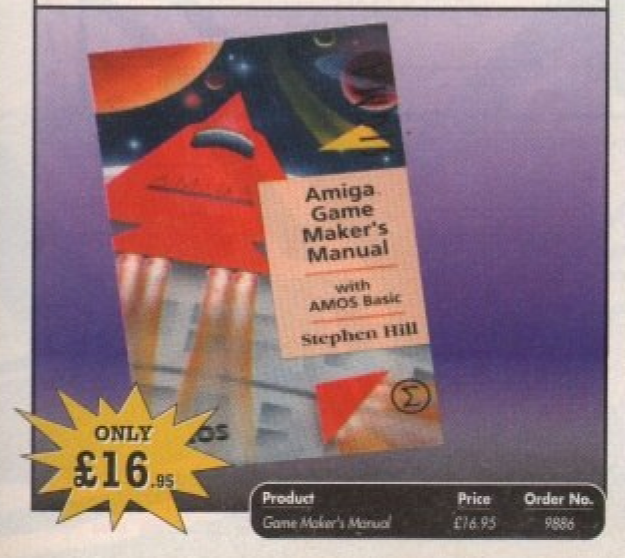


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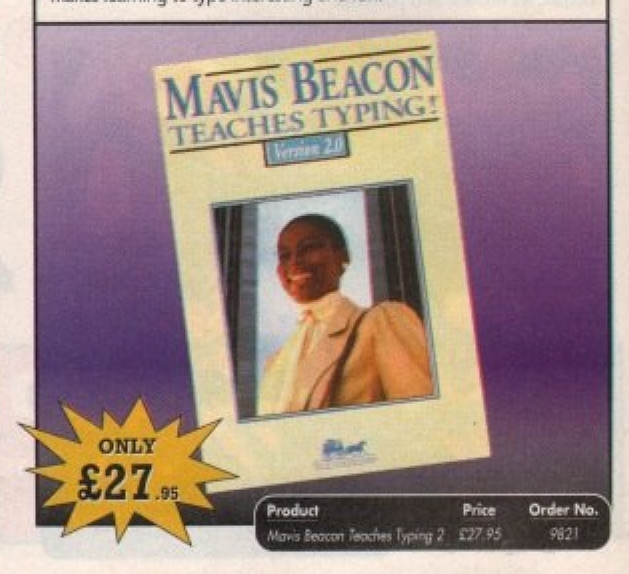


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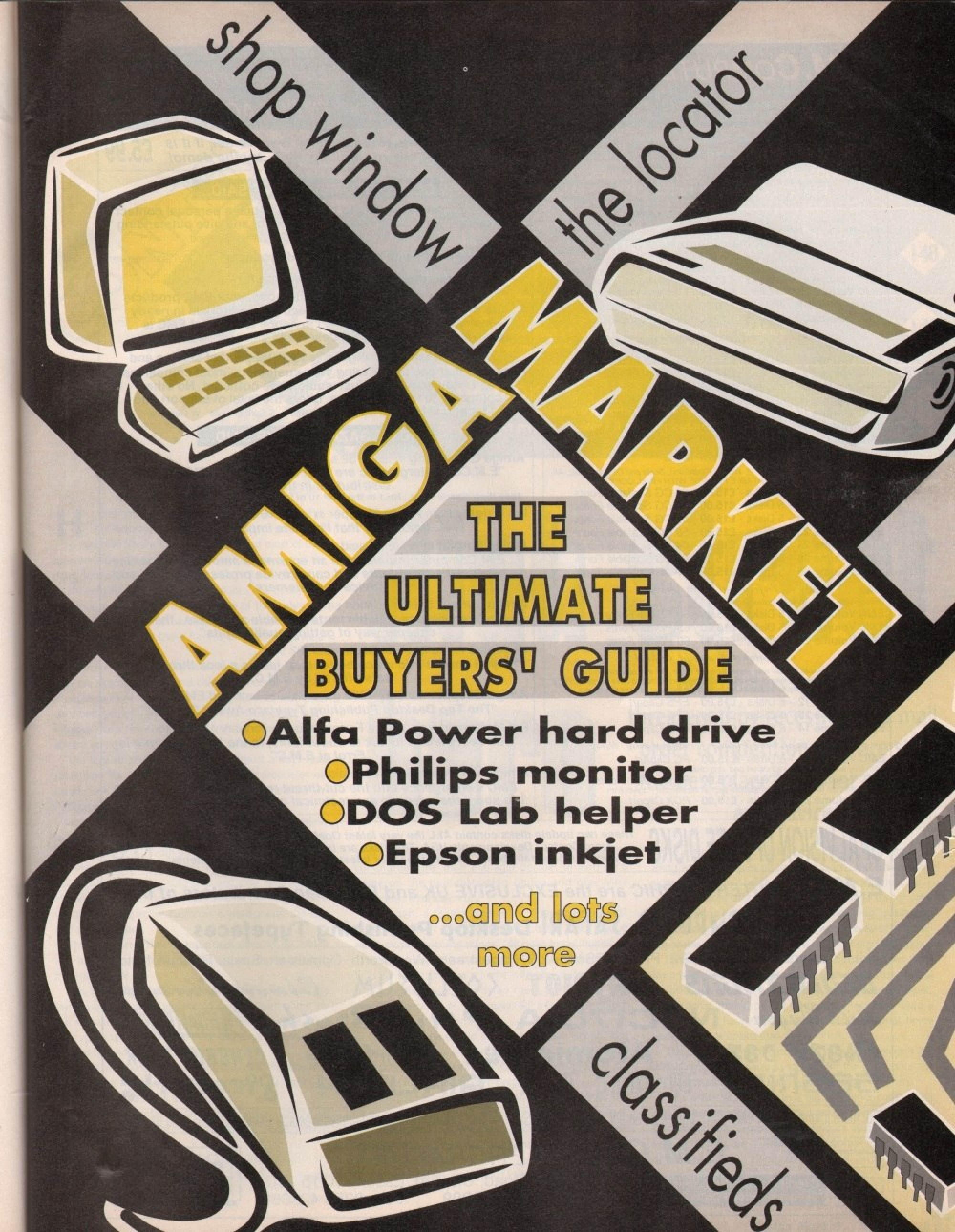
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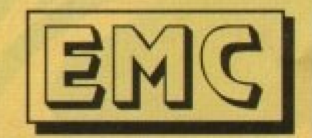




EUROCARD



E.M.COMPUTERGRAPHIC
8 Edith Road, Clacton, Essex. CO15 1JU
Tel : 0255 431389 Fax: 0255 428666





High street hero

Local dealers are a breed threatened by recession and mail order competition, but are still the best place to go for service and advice

Hundreds of thousands of Amiga users throughout Britain are in the position of having bought a machine from a mail order house and most of their software either from the same source or from one of the many software supermarkets in our larger town centres.

They might never have wandered into one of the local dealerships which were the backbone of the early computer boom, and would therefore have missed the pleasure of shopping in these havens of friendly personal service.

We refer to them as high street dealers, but in reality they are almost always found either just outside the main shopping area or hidden away on a back street, their presence betrayed only by a small ad in the local paper and a narrow shop front crammed with as many monitor screens and games promo posters as possible.

The legend above the door will almost always read something like "Computer Cabin", and the proprietor will usually look like the twin brother of Kev who runs the sci-fi shop on the next street.

Inside, the smell of pipe smoke from the bearded bloke in the back mingles with the acrid tang of the soldering iron he's using to breath a little more life into a veteran Commodore 64, and the softly muted sounds of a promotional games video running over and over on a monitor above the counter forms a backdrop to the intense conversation a prospective customer is having with the second shop assistant.

The customer wants to buy a hard drive for his Amiga and he's not convinced that the one on display is worth the asking price.

It is, the assistant admits, £50 more expensive than the same model in the magazine ad being waved about by the reluctant punter, but goes on to say that if the drive isn't up to scratch or fails during warranty, he can come back to the shop for an instant replacement.

In fact, if sir would like to bring his A500 Plus down to the shop on Monday, the assistant would be happy to prep, format, and install the hard drive.

Over at the counter, Kev's twin brother is trying to sell a joystick to a young punter who just can't make up her mind.

Should she go for the simple, old-fashioned stick costing only £9.95 or splash on the £17.95 blaster master with LCD display and four Fire buttons? To solve the conundrum, the shop manager decides to load up a game on the demonstration Amiga and give Miss Undecided a hands-on test.

Just then, a regular comes in. "How are you Bill? Busy?" Bill (Kev's twin brother, for it is he) looks around at the empty shop and shrugs. "Bit quiet today, mate."

Fred the regular has dropped in to take advantage of Bill's £5 Swap Shop, a scheme whereby customers can bring in old games and swap them for another at a charge of only a fiver. This makes Bill a few quid without hitting sales of new games.

Lunchtime comes and the shop fills out. School kids mingle with office workers around the racks of games and, though the majority are there simply to browse, the till begins to rattle a bit more frequently.

Everything from the latest shoot-'em-up to printer ribbons and blank floppies leave the shop in plastic bags and Bill starts to look a little more cheerful. Even the bearded bloke comes out to the counter to help during the busy period.

An hour passes and things calm down. The hirsute repair man disappears back into his hole to take care of an ailing Amiga, Bill goes off for a sandwich, and the assistant slumps into a chair behind the counter with a Game Gear.

Ten minutes later, a very confused Amiga owner wanders in with a "please help me, I'm drowning" expression on his face. Having installed a new wordprocessor he's having problems with his printer and can't get any hard copy.

Despite his annoyance at having been dragged away from what was looking like a Sonic high score, the assistant scribbles down a few commands on a sheet of paper, copies what should be the correct printer driver onto a floppy, and a happy and relieved customer hurries home with one less problem than when he left.

The day ends with the usual rush of browsers around five o'clock and Bill prepares to lock up for the night once the repaired machines have been collected by their owners.

He's made less today than a big mail order outfit might make in an hour, but the satisfied printer user will probably become a regular customer and at least the latest budget games are shifting well. Another unsung hero of the consumer computer miracle shuts up shop for the day.



Shop Window

The *AC* team evaluate this month's batch of new hardware and software

DOS Lab

The reaction that a priest gets when he holds up a crucifix to a vampire is similar to somebody holding an AmigaDOS manual up to a games player.

Of course this is unnecessary angst and it's in every Amiga user's interest to learn a bit of technical stuff – you never know when you might need it. Even installing a game to your hard drive can sometimes entail you doing a bit of mucking around in Shell.

But this isn't just a DOS manual – it's an interactive disk manual that takes advantage of the Amiga's capacity to multi-task, so while you are learning the various aspects of the Amiga's Workbench in one window you can practice them at the same time in another window.

It also teaches the reader small tricks that everybody eventually picks up but are really handy in the first place, like using the arrow keys to scroll through the history of commands that you use quite often.

This is all well and good but the programmer really hasn't taken into account that although he might find DOS very interesting, other people don't.

The way the text is written is fine – it's direct and to the point without baffling the reader yet not so slow as to treat the pupil like an idiot.

The main problem is the font – it's the standard Workbench issue Topaz and the background colour is deadly boring. Had it been set in a good readable font then it would have been a winner.

A good buy if your really want to learn – look out for later versions.

Supplier: George Thompson Services
Contact: 0707 391389
Price: £19.99

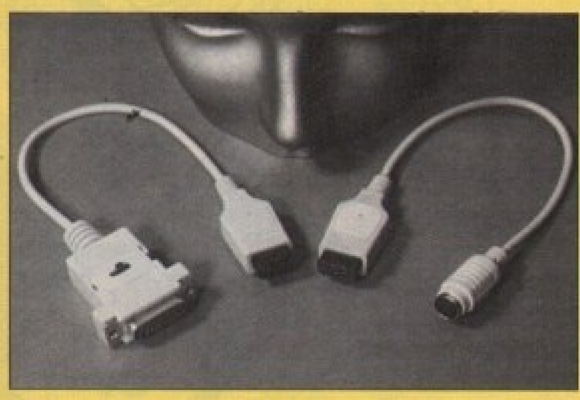
Analogue Mouse Port

How many times have you overheard a PC owner talking about using an analogue joystick? Well I have loads of times and never really thought about using one on the Amiga – until we got a smart little gadget into the office from DigiPrint.

As you probably already know, analogue joysticks for the Amiga are few and far between. For the PC they are ten-a-penny so we decided to nick one of theirs.

What we actual received through the post was a cable which has a standard nine-pin port on one end and a 15-pin female plug into which you plug the analogue joystick.

And they really do work! The one drawback is that only a few games such as F-15 Strike Eagle and Birds of Prey can take advantage of this technology.



Now use PC joysticks on the Amiga

Even so it's a fantastic feeling and you get a lot more out of flight simulation. On the top of the 15-pin plug there is a three-point resistance setting which allows you set the joystick to the resistance you want, and it's quite possible that some of the games you will try it with will only work on one setting. I can't think of anything more annoying than when the controls over-react on a game.

From the same company there is an adaptor for a Bus mouse. This basically means you can plug a PC mouse into your Amiga.

What's the point? I hear you cry. Well if you have anything to do with image processing, a good PC mouse might be worth a try because many of the higher range mice go up to about 400dpi – that's a good 150dpi more accurate than any Amiga model.

The port has been tried and tested thoroughly and it works with all the games and application software that the manufacturer tried it with.

Supplier: DigiPrint
Contact: (0101) 804 560 1769
Price: $14.95

10 out of 10 English and Maths

It's about time programmers completely gave up on the idea of teaching children using parrot fashion learning programs. The new 10 out of 10 series takes a totally different approach, and one that everybody might not agree with.

The entire learning process is done through games. What more could a child want but to learn by games? The first is a type of duck hunt. A question appears at the top of the screen with the numbers you have to work with displayed in the middle. The pupil must shoot the correct number as it passes along the conveyor belt.

You can make it a bit more awkward by speeding up the belt, limiting the shots that can be taken and setting the pupil a time limit for the exercise.

This pressure on the pupil is designed to speed up his or her reactions. It just a shame there isn't a feature in the program to test reaction time.

Next is Cover Up, a simple similarity game where the pupil has to match up sets of numbers. There is very little maths actually involved but again it's timed



so the child is under pressure to finish the exercise.

As the program moves on, the set up becomes more sophisticated. The third game has a thermometer that steadily gets hotter and hotter. To prevent it from blowing its top the questions must be answered correctly.

Again the game gets harder as the pupil progresses – the temperature begins to rise faster and the questions get harder.

It doesn't actually let you win at any time – no matter how good the student, the thermometer will eventually heat up too fast and blow up. I thought that this would be a bit demoralising to the pupil – it's not very good psychology.

The version of the software geared at the English side of the curriculum has pretty much the same games incorporated into it. This is bit of shame – it's all very well having a familiar user interface but the same games over and over again will just result in boredom. A bit of variety wouldn't have gone amiss.

The programs are entirely mouse driven and generally easy to use. A popular aspect that seems to be cropping up in a lot of new education software is the score card.

As the pupil progresses through the program he or she will amass a score that can be improved upon later, and to keep good track you can print out a score card.

As a "reward" feature, at the end of each section it

is possible for the teacher to add encouraging sentences if the child has done well or a right good slagging if he or she has failed to come up to scratch.

There are plenty of other aspects that can be controlled by the teacher – turning the sound off or making an access code to stop the child changing any of the information in the program, for instance.

All the games have six built-in grades, each aiming at a higher National Curriculum Attainment Target. When a pupil loads a game it will be set on level one, and will progress as he or she becomes more able.

Overall the packages aren't half bad. There's a lot of content and a vast amount of information for the child to plough through which offsets the fact that the overall presentation is a bit bland – not really colourful enough to hold a child's attention for a very long time.

Supplier: Triple R Education
Contact: 0742 780370
Price: £25.95 each

AlfaPower hard drive

Upgrading to a hard drive can be quite an expensive and bewildering job, with so many different makes and varieties on the market today.

Gasteiner have recently reduced prices on their AlfaPower range of hard drives for the A500, A500 Plus and A1500, making owning one a more affordable experience.

The new range can be purchased with a variety of capacities between 40 and 120Mb, and also includes the facility to add extra memory between 2 and 8Mb using reasonably priced Zip chips.

This extra memory is added to the memory already fitted internally on your machine. So it is possible to take an A500 Plus to a total of 10Mb – 2Mb chip RAM and 8Mb fast RAM.

The hard drive we tested was the 40Mb model with no extra memory. AlfaPower hard drive units are fitted with a full size hard drive as standard, but if requested can be fitted with a 2.5in drive instead for a small additional cost.

Having the ability to fit the smaller 2.5in drive is quite a good idea, because if you ever upgrade to either an A600 or A1200 you can then remove the drive unit from the AlfaPower case and fit it internally into your new machine with no problems.

There are two main types of hard drive available, which are IDE and SCSI – there is also, incidentally, SCSI II, but this is not as widely used due to its cost.

SCSI hard drives tend to be faster than IDEs but can cost almost a third of the price again. Generally an IDE interface will suffice for the home user or semi-professional, but if you intend to use the drive for manipulating large files all day long, then the speed difference between an IDE and a SCSI will be noticeable.

The AlfaPower drive for the A500 and A500 Plus comes in a smallish metal box which is the same colour and almost the same shape as an A500.

It has two switches on top for disabling the drive or the memory. The ability to switch it off without unplugging it is a good idea as not all games like having drives on at the same time. On the back there is hole to feed a ribbon cable through for you to control another drive externally. The AlfaPower unit can control two drives if required but if you have the full-sized drive fitted then the extra drive will have to go externally.



Economy is the name of the game with the AlphaPower hard drive

There is also a plug on the back for you to use an external power supply which can be bought separately. We used the unit on a 2Mb A500 Plus with one extra drive and found it worked quite happily without the external power supply, but if you have more than one extra drive, extra memory and any other devices, you might find your machine struggling to supply enough power.

Connection is achieved by removing the cover of the port on the left-hand side of the A500 and simply plugging the drive unit into this port.

You then boot your machine with the supplied install software and begin the prepping. The software will do most of this for you without you having to have any in-depth knowledge.

Along with the install software you also get several utilities which help you to check the performance of not only the drive unit but the extra memory added as well.

On test it worked well with very little noise even when accessing, and managed to transfer data at around 494k a second which is quite reasonable for the low price.

As already mentioned you can add extra memory internally by buying Zip chips which Gasteiner can supply for £69 per 2Mb. One of the more noticeable features of this drive is the fact that it has an expansion bus pass-through, which many don't have.

Having a pass-through enables you to connect other devices such as hand scanners, digitisers and sound samplers to the side without having to unplug the unit.

Certainly for the money, it offers a cheap solution to anyone who wants a hard drive but can't afford some of the more expensive models around.

One thing to note if you have a 1Mb machine and you install any hard drive is that you will lose a fair chunk of that memory for use by the hard drive.

Supplier: Gasteiner
Phone: 081-365 1151
Price: £199 to £329
Memory: £69 per 2Mb

The Essex Computer Systems Collection

I dread reviewing software such as this because once upon a time I was a PD reviewer and programs such as these had two things in common – one, they were ten a penny, two they were invariably crap. But once again I have been proved totally wrong.

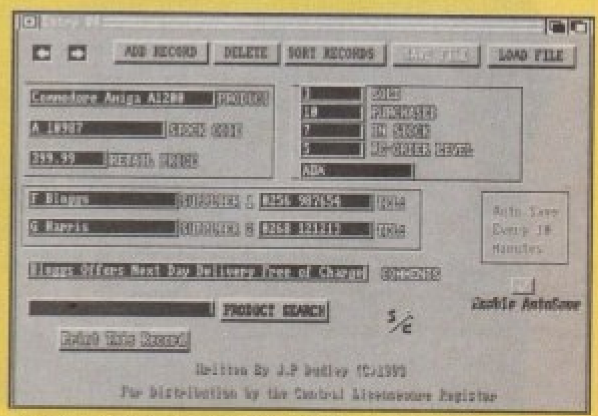
The first program from the series is called Home Brewing. Unfortunately it's just about wine and not beers, nevertheless the amount of information that been crammed onto the one disk is awesome.

The program is clearly set out with no naff frilly bits. It's just a case of clicking on each of the different menus to get to the sub menu then the listings beyond. The best feature by far is the ease of use – the icons and labels are nice and big, which is an unusual surprise.

From the main menu you can choose recipes, solve problems ➤



Making wine with Home Brewing



The Stock Controller: Simple to use



➤

and get hints and tips from the professionals. Each recipe has the method, ingredients and measurements, all of which are excellently set out. After you have used this package for a while you realise that it really is very professionally put together.

The second program is The Stock Controller. A cracking little program, basically it's a database but it's specifically designed for keeping stock in a shop. There are some really nice touches, including an auto-save option to prevent you losing records if you leave the machine on and it crashes.

The programming style isn't consistent throughout the programs which I find unusual but it's not really a blow to their competence or usefulness.

For the price there is no excuse for anybody to be cautious – £3.50 to have a bash and possibly find a program that will suit your needs well into the future is worth it.

Home Brewing/Stock Controller
Supplier: Essex Computer Systems
Contact: 0268 553963

VGA Monitor Adaptor

With the arrival of the new A1200 and A4000, more and more people want to use VGA or multisync-style monitors, but to enable you to do this you have to have a special adaptor.

Commodore up to now have been the only people producing such an adaptor, but now a company called RDS Connections are also producing one. The connector RDS produce enables an Amiga to be connected to either a VGA or a multisync monitor.

This is where a lot of people are getting confused because if you connect an Amiga to a monitor which doesn't sync down to 15kHz then you won't be able to display lo-res screens, but you will be able to use hi-res and Productivity mode.

It appears that RDS are the only company selling this product as Commodore only supply this adaptor free with the Commodore 1960 monitor and the Amiga A4000.

This device also allows A500 Plus and A600 owners to use their Productivity modes on either a VGA or multisync monitor. According to RDS this adaptor allows people to use their Amigas on VGA monitors in hi-res or Productivity modes when set up, but it can also be used on a multisync monitor which can scan down to 15kHz and up to around 33kHz.

Using such a monitor with will enable you to access all of the new Amigas' screen modes.

Supplier: RDS Connections Ltd
Phone: 0992 584205
Price: £29.95

FreeWheel and Footpedals

It's amazing that such a blindingly obvious product has taken so long to hit the market. There was always someone in the office who said it was about time we had a steering wheel of some sort to play racing games. So we went and got one, and what a laugh we had.

To complement the wheel we also got a set of Spectravideo pedals – if we were going to be big kids about this we were going to do it properly.

The first thing that baffled me about the FreeWheel was the fact that it wasn't attached to anything – it is literally a wheel with a cable coming out of it. So how does it work?

Inside the wheel are mercury switches. With mercury being a liquid it will only make an electrical connection when the switch is tilted in a certain direction. The switches are placed at equidistant points so that they will be triggered if the wheel is moved in that direction.

So imagine yourself sat holding the wheel in front of driving sim. Push forward to accelerate, pull back to brake – this takes a bit of getting used to, but it's a good system.

Next we tried the pedals. This really took me back to when I used to have to play Project X with a mouse on the floor which I had to tread on every time I wanted to select a power-up.

Of course they are very handy for driving games – the wheel and the pedals together make a formidable force. I thing most of the office tried them out at one time or another.

To look at, the pedals look like something from Mothercare – very big and chunky with bright primary colours for the three controls. Set in-between the first and second pedal is a control panel. Five sliding switches each correspond to a movement on a joystick and the Fire button. You can assign any of these would-be movements to any of the three pedals, so pedal one can act as the Fire button and pedal two as a forward push on the joystick.

My one problem with the pedals is that they don't look very strong. Mind you, they got a good wellying in the office and stood up very well – they just look a bit limp. Apart from this, I think they're a smashing piece of kit.

FreeWheel and Footpedals
Supplier: Spectravideo
Contact:: 081-902 2211
Price: £24.99



A must for driving and flight sim fans

Epson Stylus 800

Epson have for some time been the market leaders in the dot matrix printer sector, but have not paid much attention to inkjets – until now, that is.

The Stylus, according to Epson, is aimed at the mid to high-end of the inkjet market, offering excellent print quality at an affordable price. It uses Epson's new Piezo Print Technology, which is supposed to offer far greater print quality and speed over existing inkjet systems.

The Stylus 800 is quite small and certainly weighs far less than its nearest rival, the HP DeskJet 500. It has nice, easy to understand controls on the front, and no messy DIP switches at the rear (which are always such a pain to set correctly).

When you first remove it from the box you don't have to worry about assembling any of its parts like with some printers. All you do have to do before using it is insert the ink cartridge, which isn't very difficult at all.

As far as paper handling goes, you can put up to 100 sheets of A4 paper into its paper handler at a time, and you can even

➤

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load envelopes into its manual feed slot at the rear, but these must be one at a time.

Because of the way the inkjet printers work, which is by spraying very small amounts of ink onto the paper, you have to be careful which type of paper you use.

If you use paper which is very shiny or has been coated then when the ink is sprayed onto it it will not dry before the next piece of paper is placed on top, which will cause the printing to smudge.

Also if you use very rough paper, you won't be able to get sharp edges to you characters, as when you try printing the paper will absorb the ink and spread it slightly making your images blurred.

It's best to try several different types of paper before buying in bulk, as the difference between some papers when used for printing can be vast.

Unfortunately Epson have not yet produced a specific printer driver for use from Workbench for the Stylus, but you can use the EpsonQ driver and still obtain quite good results. Hopefully soon the company will get this sorted out and start producing an Amiga driver specially for this printer.

On test we used the EpsonQ driver which comes with Workbench. We also tried EpsonOld but this didn't do a very good job at all. Using EpsonQ gave very good graphic printouts, which didn't suffer from that dreaded banding which you get from a dot matrix printer.

We used TruePrint 24 to print our sample picture and it managed to produce some rather good results. Although the paper seemed to get a bit too damp when receiving pictures with a lot of detail, this was probably down to incorrect paper type.

The Stylus has five bitmap and four scalable fonts built-in. Unfortunately you can only use the scalable fonts if you have a printer driver which can utilise the newer Epson commands called ESC/P2.

Wordworth 2 if set up correctly can use both the bitmap and the scalable fonts built in to the Stylus with very good results. Also Wordworth 2 can also produce its own scalable fonts for use with any printer – these too give good results with this particular model.

The Stylus has 32k of RAM on board for buffering, which can be split into two sections – one for text and the other for graphics. One thing that's missing is any kind of expansion port for extra fonts or a larger buffer, although the need for extra internal fonts is not essential as most new wordprocessors include scalable fonts nowadays anyway.

With the Stylus being an inkjet there are no messy ribbons to contend with, just a small black box. When you want to remove the ink cartridge you simply switch the printer on holding down the Alt and Pause keys – this will cause the cartridge to move to the replacement area.

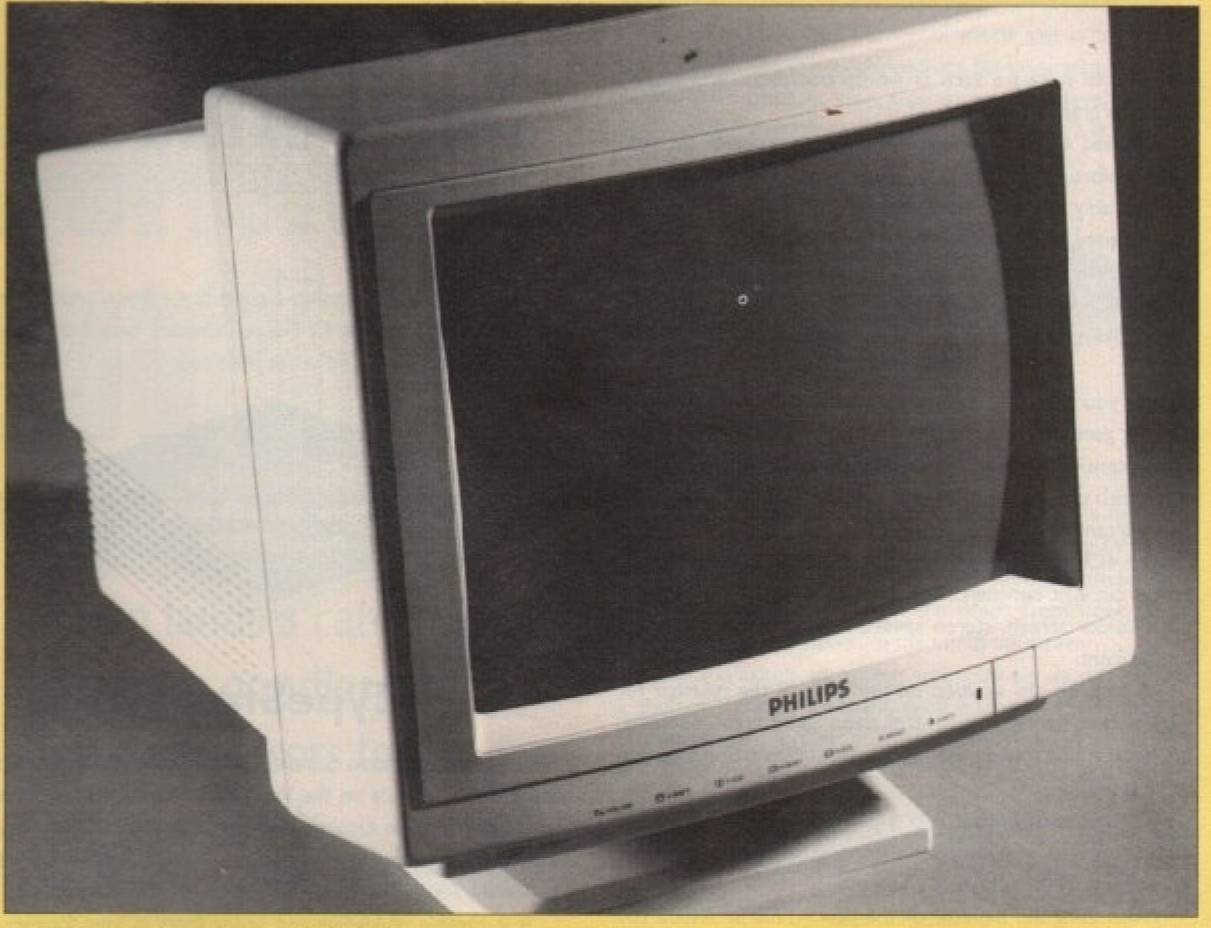
Then you pull the clamp which covers the ink cartridge towards you and remove the used cartridge. Putting a new cartridge in is just a case of placing the new cartridge into the holder and pushing the clamp back over it to hold it firmly in place, then pressing the Alt key again to charge the ink delivery system.

Now you will have enough ink to print 700,000 characters before the need to replace the cartridge again. The cartridges are not refillable.

As yet Epson don't have plans to produce a colour version but they do say they are going to release a colour inkjet in the near future, although they have no specific details as yet.

The stylus certainly offers good quality printing at a reasonable cost. If it has a downfall it is its pre-printing paper tray, as it is a rather flimsy piece of plastic.

In all, it performs well with very little trouble in setting up or altering settings, making it a keen rival to existing inkjets.



No use for 15kHz modes, the 4CM4270 at least does good hi-res scans



High quality graphics output from the Epson Sylus 800



Philips 4CM4270 Monitor

The newer Amigas now have the Productivity screen mode, but unfortunately it cannot be used on the two most popular monitors, the Commodore 1084 and the Philips MkII 8833.

The Productivity mode is supported on the A500 Plus, A600, A1200 and the A4000. Productivity is mainly used by

➤



Shop Window

commercial software such as wordprocessors, spreadsheets and some graphic packages.

It makes using Workbench much less stressful on your eyes. Unfortunately monitors which support this mode cost considerably more than lo-res models. These monitors can also be quite hard to find.

Generally if you wish to use all of the new modes, you should look for a multisync monitor which supports scan rates from 15kHz to around 33kHz, but these cost in excess of £450.

So if you only want to use your machine for work purposes and not games or anything else that uses lo-res then it may be worth considering the Philips 4CM4270 extended VGA monitor, which costs over £100 less than the cheapest true multisync currently available.

The 4CM4270 is a colour multisync which according to Philips can sync between 30 and 58kHz. It has a 14in, 0.28 dot pitch colour screen, stereo speakers and a earphone socket on the front.

All controls are situated on the front of the monitor for easy access, giving you control over audio level, contrast, brightness, horizontal size, horizontal shift, vertical size and vertical shift.

When used in Productivity mode the monitor gave good picture quality with very little bending of images near the outer edges of the screen.

When using this monitor on the new A1200 or A4000 you can put the VGA-only icon into your monitor's drawer which will enable you to display nearly all Workbench screens with very reasonable quality.

One drawback when using A1200 or A4000 in VGA mode is that sometimes the display is slightly larger than screen. It can be a pain having to scroll around, although this mainly happens with graphic packages such as ADPro. When used with either wordprocessors or DTP packages however, the display is fine. This monitor may be quite a good buy for someone who has a PC bridgeboard fitted internally into either an A1500, A2000, A3000 or A4000 as it will give them the ability to use their monitor as either an Amiga display or for the PC in SVGA mode.

For the price it's certainly a good buy – if you aren't going to want to play games. All Philips monitors have a one year, on-site warranty included in the price too.

Supplier: Philips
Phone: 081-689 4444
Price: £319.99

TypeSmith

Font editors have been common on the Amiga since FED first made an appearance on the Workbench Extras disk, but they have hitherto been capable only of editing and creating Amiga bitmap fonts. SoftLogik's TypeSmith is the first outline font editor on the Amiga and neatly fills a gap in the DTP market.

It is capable of loading and saving fonts in four formats – SoftLogik's own PageStream format, Adobe Type 1, Adobe Type 3, and Agfa Intellifont, and is thus capable of dealing with just about any typeface available for DTP and video titling work.

In addition, logos produced in a structured drawing package can be converted to fonts of their own thanks to TypeSmith's ability to load DR2D drawings.

Creating a font is, however, no easy matter. A range of standard structured drawing tools have been included to enable the construction of characters from lines and Bezier curves, but unless the user has a good idea of what he or she wants this is not a good place to start. The old fashioned method of planning a design on graph paper is probably best to start with, as anyone who has built up a complex object from structured drawing tools will confirm just how difficult it can be.

TypeSmith will, luckily, load an IFF bitmap as a background template over which the user can trace the finished characters, so it is possible to draw a set of characters, scan them in, then import them one at a time as templates.

To make the designer's job easier, the package offers a variety of time-saving tools. Composite characters, for instance – those consisting of more than one part such as the dipthong (æ) – can be built from existing characters through a screen which enables the user to put together as many as he or she likes then set the X or Y offsets for each composite member.

The resulting character is saved as a small table of information which is then used to reconstruct it as needed rather than waste duplicate disk and memory space.

There is also a print preview screen into which the user can type any string to be displayed in the current typeface and a typeface overview panel.

This feature gives the user an overview of a complete character set with all those characters present in the current set printed in white, but the characters themselves are displayed in the default system font.

Previewing an entire font in Topaz 8 is hardly the most effective way of judging how the characters look together.

On the plus side, the Edit...Metrics menu option enables the loading and real-time editing of kerning pairs such as VO and AV. When the preview option is selected, the kerning pair is displayed on screen and the user can change the amount of space between characters using simple mouse clicks or by assigning a specific value.

As custom fonts will often have need of their own kerning pairs, the ability to add as many as required then save the kerning information with the typeface is invaluable.

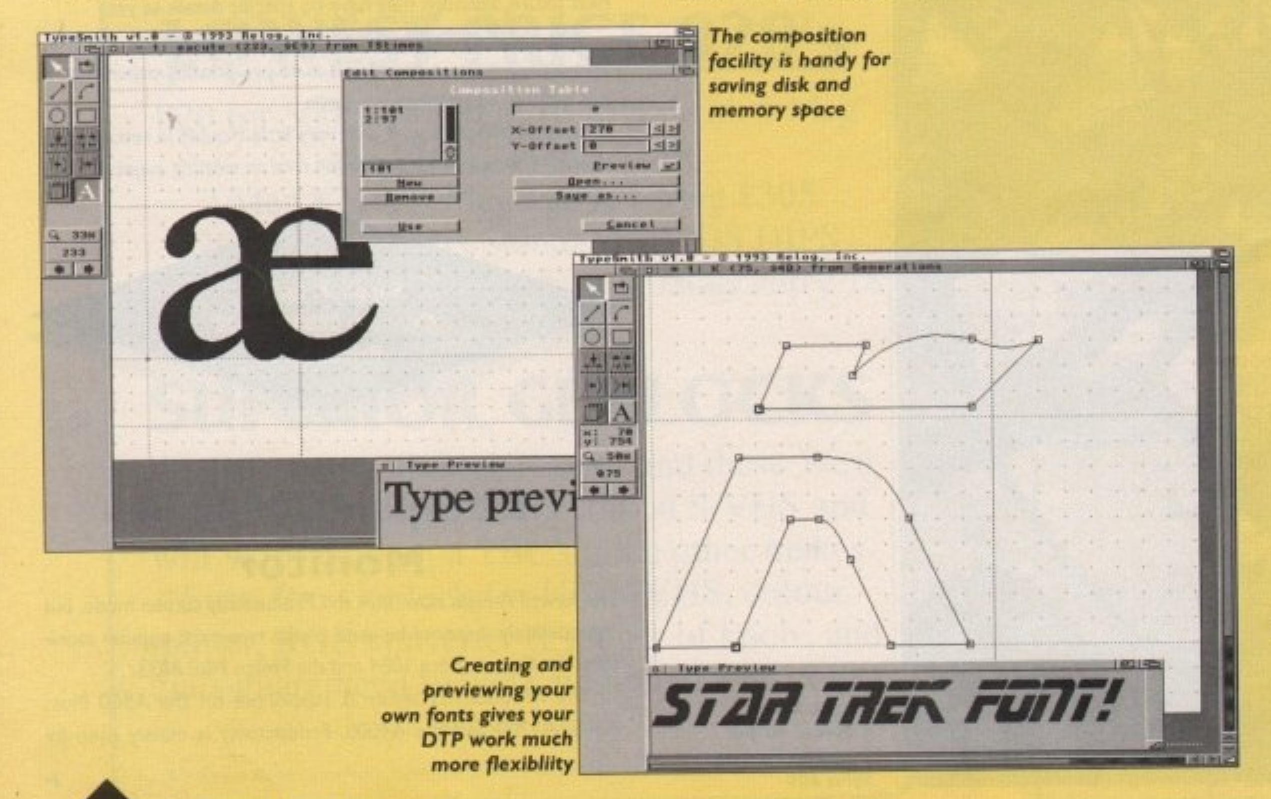
One pleasantly surprising feature when saving Intellifonts is the option to specify that the font is saved in a Gold Disk friendly format.

Since the early releases of ProPage, Gold Disk have insisted on using Agfa fonts with separate outline (.dat) and metric (.metric) files, making necessary the use of the Gold Disk font converter.

TypeSmith's acknowledgement that ProPage exists and has a fair old share of the Amiga DTP market is both a refreshing change from the usual lack of communications between SoftLogik and their arch rivals and a feature which greatly enhances the package's appeal.

TypeSmith is a superb package for what it does, and there is precious little that could have been added to make it any better. It would have been nice to see the ability to create Amiga bitmap fonts from their outline cousins, but as this is a program designed for the professional market the omission is not a serious one.

Full marks to SoftLogik on a clean, elegant, workmanlike product, if a little overpriced.



The composition facility is handy for saving disk and memory space

Creating and previewing your own fonts gives your DTP work much more flexiblity

Supplier: Silica Systems
Contact: £129.95
Price: 081-309 1111



Software spotlight

Amiga Market's software scoop lands a catch of painting goodies and wordprocessors for all pockets

Paint packages

DPaint 4

DPaint needs no introduction, as it has for long been the Amiga's number one art package. However, Electronic Arts made a late entry into the HAM painting scene only last year, and it hasn't been a particularly inspiring one.

DPaint 4 has, of course, all the excellent features of DPaint 3, but when considered as a HAM package it is incredibly slow and virtually unusable for freehand or even reasonably flowing work.

The speed of screen update is quite pitiful, despite several enhancements in DPaint 4.1, and will discourage any exclusively HAM-based artist from the outset.

Still the best buy for general Amiga artwork and animation, DPaint 4 is a no-go for HAM fans.

Supplier: Electronic Arts
Phone:0753 549442
Price: £99

Spectracolor

This is probably the best all-round HAM paint package at the moment, if only because it is smooth in operation and has a thoroughly modern interface. Not as well established as DPaint, Spectracolor nevertheless manages HAM painting with little fuss, quick screen updates, and a healthy supply of extra features.

The obligatory palette mixer is there, but in addition the program offers morphing, blending, smoothing and a wide range of colour controls.

The animation function are easy to use, if a little slow, and selecting and creating palettes ranges is a simple job. A well balanced all-round package and recommended for the HAM artist, though not as appealing as DPaint for general use.

Supplier: Micro-PACE
Phone: 0753 551888
Price: £77.54

DigiPaint III

Developed from the Amiga's first ever HAM paint program, DigiPaint III is looking a little long in the tooth these days. It has some nice touches, such as the colour swatches and gradient ranges, but for features the package can't match the others.

In the same way as Photon Paint, DigiPaint is a good choice for those with an eye to economy, but with its slightly quirky interface it falls short of the mark as a modern program. It has speed in its favour, something you'd expect from the HAM specialists, but little else.

Supplier: Silica Systems
Phone: 081-309 1111
Price: £69.95

Personal Paint

A new product for the AGA machines, Personal Paint is a basic package with no animation facility and little in the way of frills. It is designed purely with 256-colour images in mind and cannot load Ham8 files, so users might find it of limited appeal.

The tools included are perfectly capable of producing decent artwork, and a fair selection of DPaint-style tools and pull-down menu selections provide enough flexibility and power for drawing.

However, the built-in image processing functions which are supposed to lend the package a unique attraction are often too slow to be usable.

Definitely only of interest to the A1200 or A4000 owner, Personal Paint is best looked on as an alternative to the even slower DPaint 4 for basic drawing.

Supplier: Micro-PACE
Phone: 0753 551888
Price: £59.99

TV Paint

Quite simply the best 24-bit paint package available for the Amiga, TV Paint made its debut on the Harlequin card and has since made appearances on the Avideo and IV24 boards.

Dedicated to producing high quality output for TV graphics, TV Paint does the job with the minimum of fuss and bother. All controls are accessed from a single floating tool box, and most icons bring up their own requesters.

At all times the interface is clean, simple, and easy to use, with speed and the necessity to avoid interfering with the artist so obviously of prime importance to the program's designers.

The range of gradient fills, stencil effects and airbrush controls is unmatched, and as the package has undergone constant revision over the past year, support for new developments seems certain to continue. Look out for TVPaint v2 in the near future.

Supplier: Amiga Centre Scotland
Phone: 0896 87583
Price: £950

Imagica

Produced to run on the VD 2001 board, Imagica's interface looks similar in many ways to that of Paintbox, the TV industry's standard 24-bit art system. All controls are made via a large, smooth looking gadget screen which drops down when the mouse pointer is moved to the top of the screen.

Control is mostly via gadgets which are big enough to read at distance, making them more readable than TV Paint's diminutive tool box, and all main menu gadgets allow access to further screen for the manipulation of colour, brushes, and special effects.

The features available in Imagica aren't quite as comprehensive as TV Paint, but the package can still produce images to match its rival.

For the budget artists, Imagica is available as a two-module set, so it is possible to buy the basic painting functions in module 1 and spend the extra money later to get the more advanced features of module 2, or to jump right in and buy both at once.

No matter which course is taken, Imagica is a fast, smooth, easy to use package which deserves to be running on a better board than the ageing VD 2001.

Supplier: G2 Systems
Phone: 0252 737151
Price: N/A

MacroPaint

This software is bundled free with the GVP IV24 card, and it really deserves no more dignified method of distribution. It is unbelievably slow, difficult to use with its minute control icons, and not particularly powerful.

This is not to say that quality images cannot be produced using MacroPaint. They can, it's just that the process is so much more painful than when using TV Paint or Imagica. For the purchaser of an IV24, MacroPaint is a good (free) start in 24-bit art, but as a standalone paint package it would drop dead from public exposure quicker than a wet man standing on a glacier in a snow storm.

Supplier: Silica Systems
Phone: 081-309 1111
Price: £1,749 (IV24 bundle)



Software spotlight

Wordprocessors

Protext 5.5

For long the Amiga's premier wordprocessor, Protext is still the most powerful, though lacking many of the features found in wysiwyg packages.

Protext is fast, contains a powerful built-in macro and command language, can produce invoices using its line drawing mode and has many of the features you'll only otherwise find in a PC package, such as auto numbering and self-incrementing variables. For business users it is the only choice.

Disadvantages include its limited display (definitely not wysiwyg), its less than completely friendly interface, lack of graphics support and overall complexity, so it is perhaps not the ideal choice for home users.

Ideal uses for Protext include invoicing, mail-outs (due to its powerful mail merging options), and the rapid generation of huge amounts of text – its simple display lends it the fastest typing speed of all Amiga WPs.

Supplier: Arnor
Phone: 0733 68909
Price: £80

Wordworth v2

Another British-produced program, Wordworth is a smooth, user-friendly wordprocessor with fewer power features than Protext but superb document design options and a finished output that's better than most.

Wordworth is one of the easiest WPs with which to generate PostScript documents, as it has full support for the standard and is supplied with 17 superb Agfa fonts.

It also comes complete with support for 140 individual printers, enabling full control of built-in printer fonts from within a document. The spell checker and thesaurus used is the Collins Linguibase (as used by Protext), so British spellings are the order of the day. Both work very well.

The program's disadvantages are that it can be memory hungry, offers no macro facility, and can sometimes run very slowly when memory is tight.

Not the best WP for the office, Wordworth 2 is better suited to the production of high quality PostScript documents including graphics.

Ideal uses for Wordworth include letter writing, important documents which have to look just right, such as CVs, simple DTP tasks (its graphic support and PostScript options give it a definite advantage) and general home correspondence.

Supplier: Digita
Phone: 0395 270273
Price: £129.99

excellence! 3.0

excellence!, which for some reason doesn't have a capital letter at the beginning of its title, is a huge sprawling package including a 140,000 word dictionary complete with definitions, a thesaurus, grammar checker, and PostScript support.

It sounds like great value for money, and in some ways it is, but excellence! is in many ways over the top and suffers in the basic areas as a result.

Advanced features include the ability to use multiple columns of text in a document, PostScript support using its own versions of popular fonts, automatic contents generation (of the others, only Protext does this), and graphic support. However, text scrolling speed is poor and the program uses a lot of memory.

For users worried about their presentation, excellence! is a good bet as the built-in grammar checker is powerful enough to spot most of the mistakes made by amateur wordsmiths.

Supplier: HB Marketing
Phone: 0753 686000
Price: £49.99

Final Copy II

Probably the most attractive looking wordprocessor around, FCII is fast, colourful, and slick. Ham8 graphics and DTP are the program's forte, and it has a number of features specifically aimed at making good presentation easier.

Like its predecessor, Pen Pal, the program has drawing tools available for designing page elements from within the wordprocessor, but in line with the main competition, all AGA graphics modes are supported.

Uniquely at time of writing, FC II also displays 256 colour graphics on screen, making it the best WP for colour printing, particularly PostScript printing.

For basic wordprocessing and superbly colourful pseudo-DTP, Final Copy II is a good bet, but don't expect to write a magnum opus with it.

Supplier: Gordon Harwood
Phone: 0773 836781
Price: £99.95

ProWrite 3.3

Having recently been price-slashed, ProWrite is a rather attractive buy for those in need of a general purpose WP. The problem with ProWrite is that it is just that – general purpose.

It is similar to Wordworth in that it is a full wysiwyg package with direct PostScript support and a lot of icons for standard functions.

However, the PostScript option isn't as neatly implemented as the Digita offering, the program doesn't support built in printer fonts, and it is slower, especially when Ham8 graphics are included in a document.

Having said all this, ProWrite is a perfectly usable package, and has the advantage of its ten user-definable macros which can be very useful with a bit of thought on the user's part.

Like Wordworth, it has a good, though American, spell checker and word count, but it will also carry out calculations and automatically sort a list of words in alphabetical order.

ProWrite is best suited to the home user who prefers to save a few bob and isn't too bothered about speed of scrolling. For those people it represents a bargain at its present price and should serve well in its general purpose role.

Supplier: Silica Systems
Phone: 081-309 1111
Price: £79.99

Scribble

Scribble is one of the Amiga's golden oldies and is usually supplied as part of the Works Platinum home office package. It is a basic, non-wysiwyg wordprocessor and has few, if any, whistles and bells.

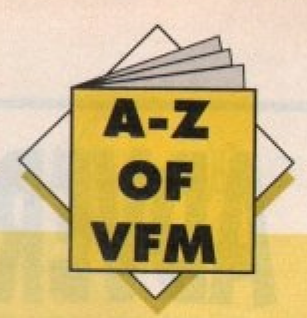
Most of the standard options are there, including search/replace, spell checker, and word count, but its features are usually in the most basic form.

Its dull-looking interface, with no gadgets and all options restricted to menus rather like Protext 5.5, doesn't score highly in these days of prettified software, but thousands of staunch users would no doubt agree that this leads to an easy-on-the-eye environment for bashing out text.

There's little to commend Scribble other than this and its low price, but it's still an attractive buy for those with a need for a basic text engine.

If you want to produce documents with lots of text effects and different fonts, the print preview mode makes up in part for the lack of a modern display.

Supplier: HB Marketing
Phone: 0753 686000
Price: £44.95



HARD TIMES

With hard disks becoming ever more essential, it's time to cut through the technological red tape and unravel the myth and mystery of perhaps the most expensive add-on you'll ever buy...

In the past hard disks were strictly for the serious but with the ever increasing number of installable games, faster machines and punter-friendly power products, the tables have turned and the anoraks of old are no longer alone in the quest for faster, bigger and better storage.

For those who never wander much further than the games section, the apparent complexity of the subject and range of hardware on the market must seem rather daunting. However, the move from floppies doesn't have to be as traumatic as you might imagine.

One of the biggest misconceptions about a hard disk is that somehow it will transform your machine from an old friend into a total stranger set to scotch any attempt at useability, or alternatively create an all-singing, all-dancing automated answer to life, the universe and everything.

Bliss and misery

In fact if approached from the right or wrong angle both arguments hold water, the angle being your level of understanding of how a hard disk operates. This could literally mean the difference between bliss and misery.

In effect, a hard disk is simply a very big, very fast, floppy. If you can keep this concept in mind, managing the beast is a whole lot easier. For example, a hard disk has to have all the basic elements the Amiga expects to find on a floppy.

If the machine can't find essentials such as the C directory it won't perform even the most basic CLI commands as almost all the CLI essentials must be resident in the C directory of the system disk, just as they are when the floppy boots the machine thereby assuming the role of a floppy system disk.

Whenever the machine is turned on with a hard disk installed and no floppy present the hard disk immediately becomes the system disk and as a result the machine will attempt to boot from it and from then on look to it for all the files asked for either by you or your software unless told otherwise.

The point is that you must be able to manage your hard disk properly by making sure that what the Amiga requires is available and in the right place. For this reason alone a directory manager is essential. Fortunately there's a lot of choice in this area with several programs in the public domain plus the odd commercial alternative. Notable PD programs including TDM and SID2 – both of which have been on past *AC* CoverDisks – while commercial offerings include Directory Opus and Directory Manager. For the beginner a PD program should be more than enough as it simply makes the process of copying, moving and managing files much easier. If however you feel confident to handle the process via the CLI or Shell feel free.

In addition to file management, it's essential you become comfortable with the AmigaDOS assign command as it becomes invaluable to any hard disk user. Assuming you've decided to take the plunge, what's next? Should you go for a SCSI or an IDE? Do you have a choice, and if so what's the difference?

Well although a slightly complex subject here are the basics. If you own a machine that runs on Workbench 2 or below you have the choice between IDE and SCSI with the essential difference being that SCSI devices are generally a little faster and more expandable while IDEs are cheaper.

Unlike IDE the SCSI standard is much more intelligent and as a result can be employed to control other devices besides just hard disks. In addition a SCSI controller is much more self sufficient than an IDE and won't overburden the CPU of the machine when reading or saving data.

Gauging speed

For the average user the difference in speed is barely noticeable, especially if you've just upgraded from a floppy system. The thing to ear in mind is that speed in relation to hard disks is totally different to what you're use too. For example in floppy terms speed is usually gauged in minutes while hard disks are compared in milliseconds.

In simple terms this means that software loaded on a IDE drive will take longer to load in relation to the average SCSI with the effect increasing when writing to the disk.

On the expansion side an IDE will support a maximum of three drives from one controller while SCSI stretches up to seven. Although a real advantage to serious users the advantages aren't really an issue for the average punter.

After all, can you see yourself lashing out for expensive SCSI add-ons or extra drives?

Learn how to ask the right questions

Before handing over any cash here's a list of essential questions you should put to you supplier.

First and foremost ask whether the unit is IDE or SCSI. If the unit is an IDE ask if the drive – minus the controller card – would fit into either an A600 or A1200. This is worth knowing even if you're planning to use the drive externally because if you decide to upgrade later on you won't need to invest in a new drive.

When buying an A500/500 Plus external, ask if memory can be added to the drive, and if so can the machine still use this additional RAM when the hard disk is turned off?

If the drive you want operates without a power supply, ask if there is an option to add a power supply if necessary. This may be essential if you plan to use the drive with additional peripherals as the strain on the Amiga's internal power may be too much.

In the same vein, ask if the drive offers a DMA pass-through. If not it will be impossible to use additional DMA devices such as scanners or RAM expansions unless they offer a DMA-through option allowing the drive to be appended to them. If you opt for a SCSI device and wish to take advantage of its daisy-chaining potential, ensure that the drive has a SCSI through-port. If not you won't be able to expand later on, unless you buy another controller card.

Remember to ask about the speed of the drive. Query the drives access time in milliseconds. The fastest drives run at about 11 milliseconds with 17 being the norm for IDEs – anything above 20 is pretty sluggish...

If you're planning to buy a second-hand unit make sure the drive's original formatting and prep software comes as part of the deal. If disaster strikes and you're forced to re-format your drive finding appropriate software can be very difficult – especially on older models.

Finally when buying a drive make sure you have at least 2Mb of memory in total. Commodore found this out to their cost with the A600HD which shipped with only 1Mb and as a result wouldn't run many games simply because a certain amount of RAM is required to boot the hard disk and Workbench, thereby rendering them unusable.

AMIGA COMPUTING

ADVERTISERS' INDEX

GAMER

Locator

Your at-a-glance guide to shopping through the pages of AC. All our advertisers, all their products, and all in an easy to find format. Your Amiga Market Locator makes finding that bargain infinitely easier.

	AMIGAS						PRINTERS				PERIPHERALS									SOFTWARE											MISC		
COMPANY	A500	A600	A1500	A2000	A3000	A4000	Laser	Dot Matrix	Bubblejet	Colour	RAM	Hard Drives	Floppy drives	Genlocks	Scanners	Digitisers	Samplers	Modems	Monitors	Wordprocessors	Databases	Spreadsheets	DTP	Ray tracing	Graphics	Music	Shareware/PD	Games	Education	Programming	Consumables	Repairs	Training/tutorials
1st Computer Centre	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●		
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The Disc Company																											●						
Videoware																											●						
Virus Free PD																															●		
West Midland Computers	●	●						●	●	●	●	●	●					●	●	●	●	●	●		●						●		
White Knight Technology	●	●	●	●	●	●					●	●	●	●	●	●																	
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Biggin Hill
Kent TN16 3DP

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24 HOUR Ansaphone

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COMPUTERS

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PC880B with CYCLONE and X-COPY	£99.95
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x 25	£11.50	x 50	£21.00
x 100	£36.95	x 200	£69.95
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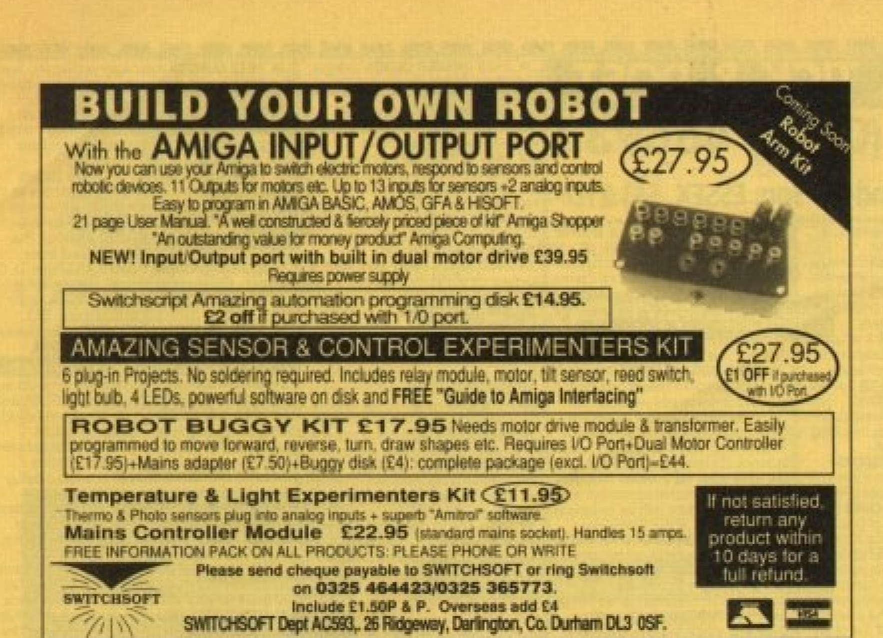
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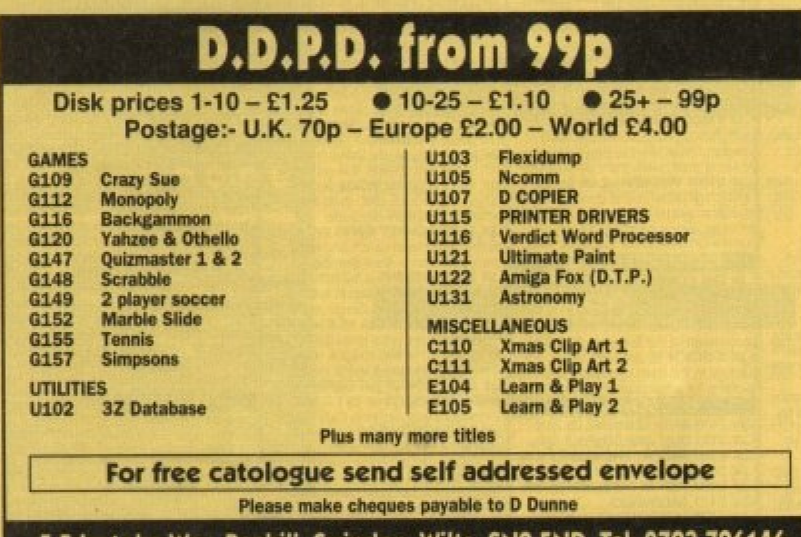
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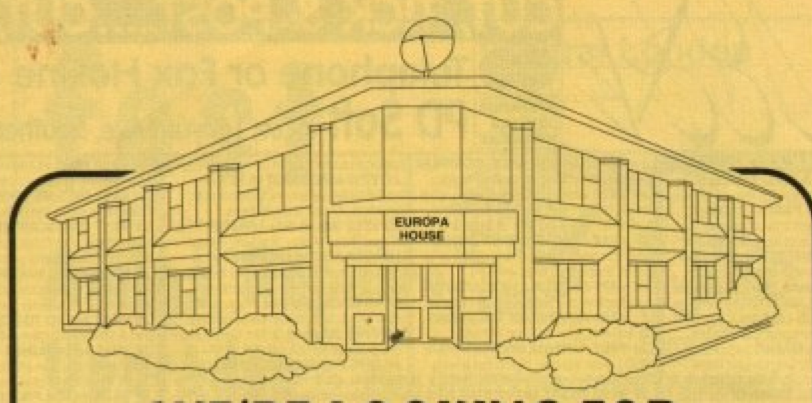
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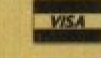
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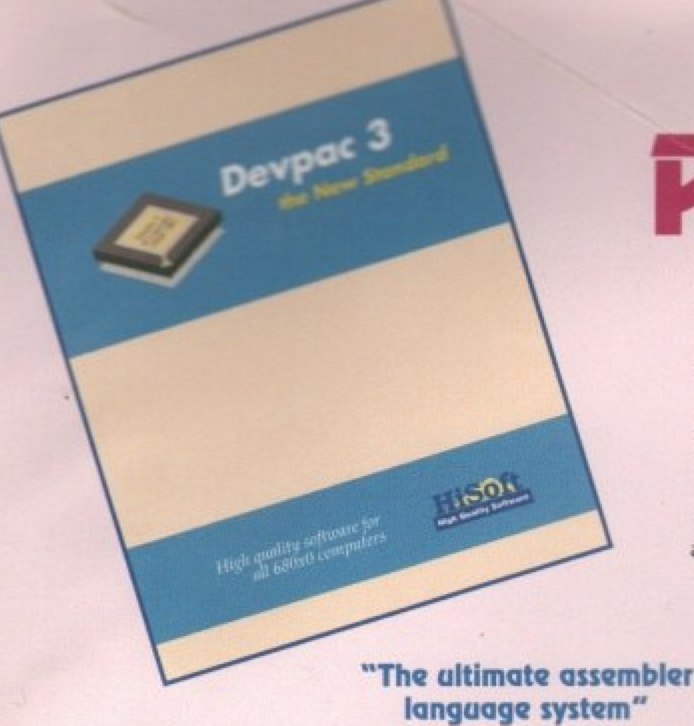
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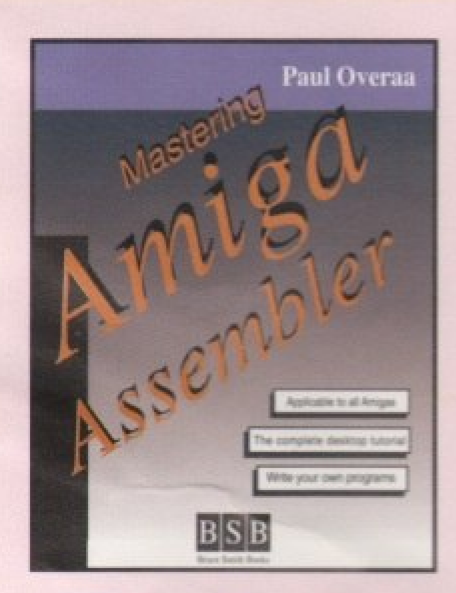
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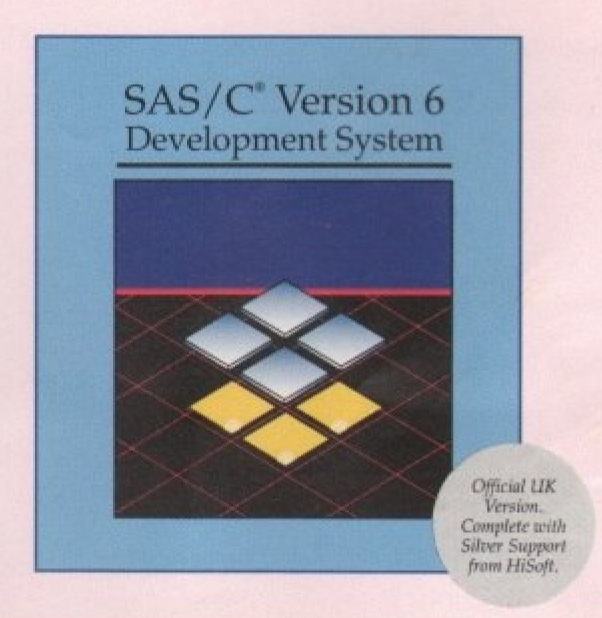
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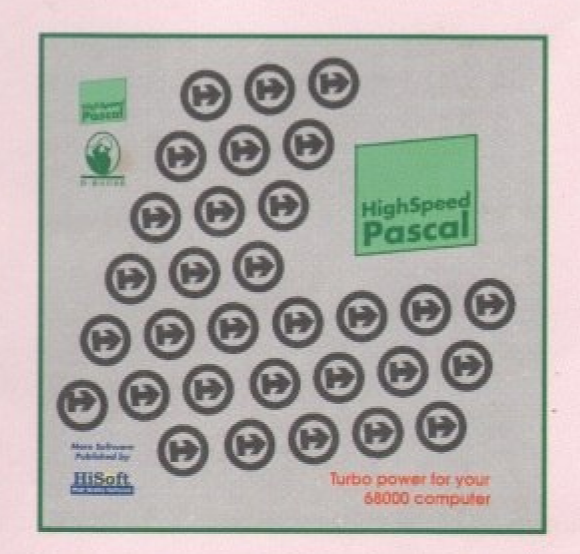
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